

PRC Environmental Management, Inc.  
233 North Michigan Avenue  
Suite 1621  
Chicago, IL 60601  
312-856-8700  
Fax 312-938-0118



**PRELIMINARY ASSESSMENT/  
VISUAL SITE INSPECTION**

**AIRTEX PRODUCTS DIVISION  
UNITED INDUSTRIAL SYNDICATE  
FAIRFIELD, ILLINOIS  
ILD 001 662 816**

**FINAL REPORT**

**Prepared for**

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Waste Programs Enforcement  
Washington, DC 20460**

Work Assignment No.	:	C05087
EPA Region	:	5
Site No.	:	ILD 001 662 816
Date Prepared	:	March 22, 1993
Contract No.	:	68-W9-0006
PRC No.	:	009-C05087IL7Y
Prepared by	:	PRC Environmental Management, Inc. (Tim Oliver)
Contractor Project Manager	:	Shin Ahn
Telephone No.	:	(312) 856-8700
EPA Work Assignment Manager	:	Kevin Pierard
Telephone No.	:	(312) 886-4448

EPA Region 5 Records Ctr.



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- A EPA PRELIMINARY ASSESSMENT FORM 2070-12
- B VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS
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**EXECUTIVE SUMMARY**

PRC Environmental Management, Inc. (PRC), performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and likelihood of releases from solid waste management units (SWMU) and other areas of concern (AOC) at the Airtex Products Division, United Industrial Syndicate (Airtex) facility in Fairfield, Wayne County, Illinois. This summary highlights the results of the PA/VSI and the potential for releases of hazardous wastes or hazardous constituents from SWMUs and AOCs identified. In addition, a completed U.S. Environmental Protection Agency (EPA) Preliminary Assessment Form (EPA Form 2070-12) is included in Attachment A to assist in prioritizing RCRA facilities for corrective action.

Airtex is a manufacturer and distributor of automotive parts such as fuel pumps, water pumps, hydraulic brake parts, front-end suspension parts, and filters. The manufacturing processes conducted at the facility include casting, machining, polishing, heat treating, plating, assembly, and packaging. Airtex operates three separate manufacturing facilities in Fairfield: Plant 1 at 407 Main Street, Plant 2 at 800 Leininger Road, and Plant 3 at 307 Highland Avenue. Plant 1 occupies approximately 7.42 acres, Plant 2, approximately 23.23 acres. Plant 3 consists of a space in a building that is leased from the Fairfield Community Industrial Trust. Airtex does not own the property. All three plants are located in mixed-use areas. Facility operations began at Plant 1 in 1935 and at Plant 2 in 1946. Airtex began leasing space for Plant 3 in November 1988. Airtex filed a RCRA Part A permit application in 1980 for the storage of hazardous waste at both Plants 1 and 2. The facility has used the same EPA identification number to generate, store and transport hazardous wastes at both Plants 1 and 2 until 1987. (This is illegal under 40 Code of Federal Regulation Part 260.10.) Airtex currently generates seven general types of waste at these facilities: plating wastewater pretreatment sludge (F006) and treated plating wastewater (nonhazardous) at Plant 1; waste oils (nonhazardous) and waste metal grit (nonhazardous) at Plants 1 and 2; waste impregnator water (nonhazardous) at Plant 2; and waste lapping compound (nonhazardous) and waste resin (nonhazardous) at Plant 3. All of the wastes are accumulated on site before being taken off site for treatment and disposal. Airtex closed the Former Plant 1 RCRA Container Storage Area (SWMU 4) in 1986; however, this closure did not address the Former Plant 2 RCRA Container Storage Area (SWMU 11). Hazardous waste has not been generated in Plant 3. The facility is currently considered by the Illinois Environmental Protection Agency as a generator of hazardous wastewater pretreatment sludge only.

The removal of two underground fuel oil storage tanks at Plant 1 in June 1992 exposed limited subsurface soil contamination. The removal included the excavation and off-site disposal of visually contaminated soils. The facility is currently conducting further investigation in the



was available at the time of this PA/VSI. The potential for release to ground water from all SWMUs is low.

The potential for a release to surface water, air, and on-site soils from all SWMUs is low. The SWMUs identified are either inactive or have adequate secondary containment to prevent the spills identified during the VSI from leaving the SWMU area. Soil contamination of Johnson Creek near AOC 2, if it exists, pose a low to moderate potential for a continuing release to surface water in Johnson Creek. No sampling has been conducted. Johnson Creek, a drainage system that flows throughout Fairfield and passes within a quarter mile of Plants 2 and 3. Johnson Creek is used for recreational purposes. It flows into the Little Wabash River about seven miles east of Fairfield. Documented sursurface soil contamination at AOC 1 exists. This area is currently covered by a new dock area. All of the plants are located adjacent to residential areas and all three have 24-hour security.

PRC recommends that the facility continue with its investigation of the Former Fuel Oil UST Area (AOC 1) and take further action concerning the area as directed by the Illinois Environmental Protection Agency. Preliminary soil sampling for metals and cyanide at Johnson Creek near the discharge point for AOC 2 should be implemented to determine if contamination exists. Revised waste-handling procedures should also be instituted at SWMUs 1, 3, 13, and 14 to eliminate waste spills. The facility should inspect concrete sumps at SWMUs 10 and 11 to determine their integrity because waste material in the sumps prevented them from being inspected during the VSI. Finally, the facility should complete RCRA closure activities at SWMU 11, because records indicate that this former container storage area currently has interim status.

## **1.0 INTRODUCTION**

**PRC Environmental Management, Inc. (PRC), received Work Assignment No. C05087 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in Region 5.**

**As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of prioritizing facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC).**

**A SWMU is defined as any discernible unit at a RCRA facility in which solid wastes have been placed and from which hazardous constituents might migrate, regardless of whether the unit was intended to manage solid or hazardous waste.**

**The SWMU definition includes the following:**

- RCRA-regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells**
- Closed and abandoned units**
- Recycling units, wastewater treatment units, and other units that EPA has usually exempted from standards applicable to hazardous waste management units**
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents. Such areas might include a wood preservative drippage area, a loading or unloading area, or an area where solvent used to wash large parts has continually dripped onto soils.**

**An AOC is defined as any area where a release of hazardous waste or constituents to the environment has occurred or is suspected to have occurred on a nonroutine and nonsystematic basis. This includes any area where a strong possibility exists that such a release might occur in the future.**

The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility
- Obtain information on the operational history of the facility
- Obtain information on releases from any units at the facility
- Identify data gaps and other informational needs to be filled during the VSI

The PA generally includes review of all relevant documents and files located at state offices and at the EPA Region 5 office in Chicago.

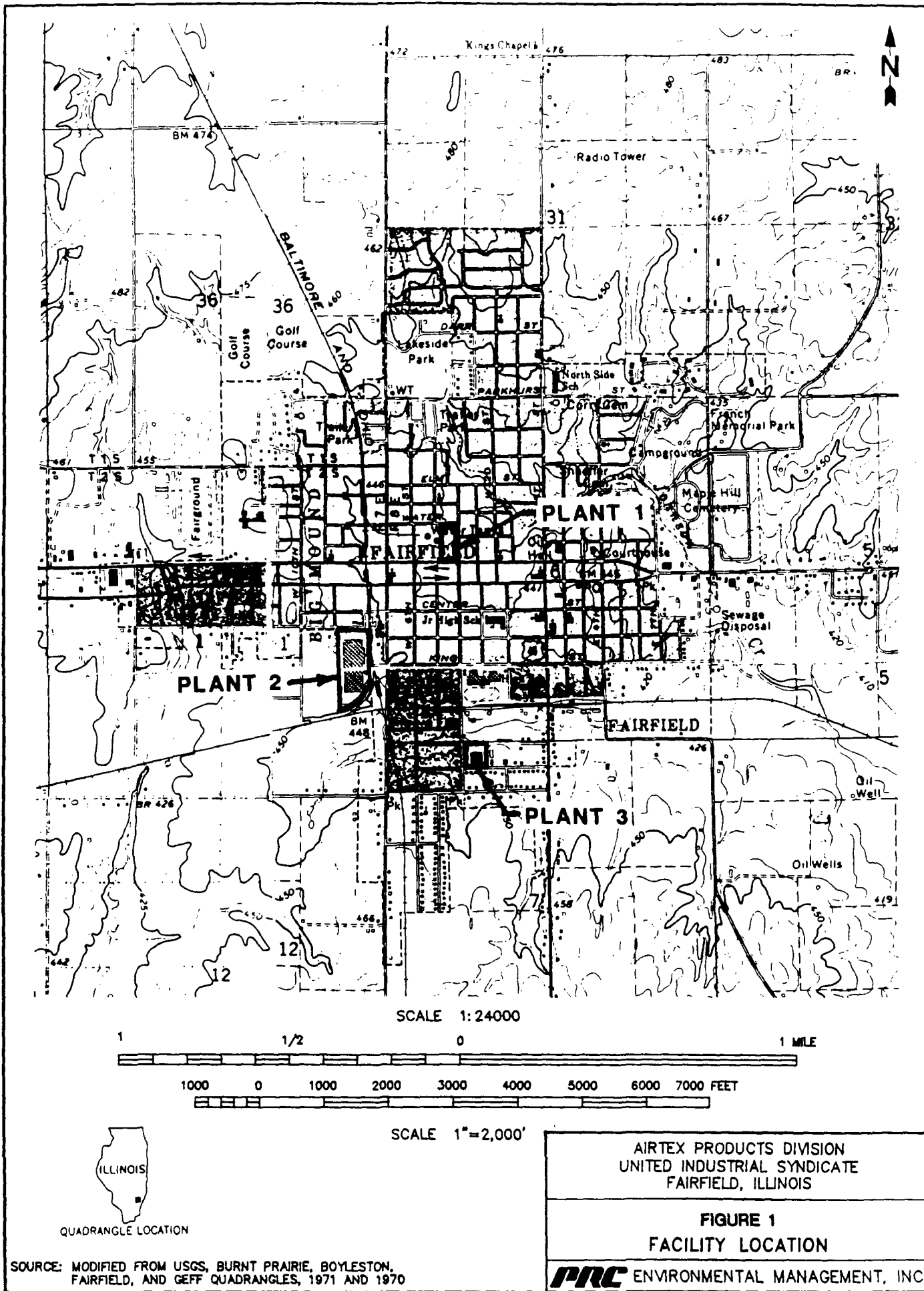
The purpose of the VSI is as follows:

- Identify SWMUs and AOCs not discovered during the PA
- Identify releases not discovered during the PA
- Provide a specific description of the environmental setting
- Provide information on release pathways and the potential for releases to each medium
- Confirm information obtained during the PA regarding operations, SWMUs, AOCs, and releases

The VSI includes interviewing appropriate facility staff; inspecting the entire facility to identify all SWMUs and AOCs; photographing all visible SWMUs; identifying evidence of releases; making a preliminary selection of potential sampling parameters and locations, if needed; and obtaining additional information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the Airtex Products Division, United Industrial Syndicate (Airtex) facility (EPA Identification No. ILD 001 662 816) in Fairfield, Wayne County, Illinois. The PA was completed on December 18, 1992. PRC gathered and reviewed information from the Illinois Environmental Protection Agency (IEPA) and from EPA Region 5 RCRA files. The VSI was conducted on January 12, 1993. It included interviews with facility representatives and a walk-through inspection of the facility. PRC identified 14 SWMUs and two AOCs at the facility.

PRC completed EPA Form 2070-12 using information gathered during the PA/VSI. This form is included as Attachment A. The VSI is summarized and 23 inspection photographs are included in Attachment B. Field notes from the VSI are included in Attachment C. Attachment D includes analytical results for waste-stream analysis and subsurface soil samples.



## 2.2

## FACILITY OPERATIONS

Airtex is a manufacturer and distributor of automotive parts such as fuel pumps, water pumps, hydraulic brake parts, front end suspension parts, and filters. The manufacturing processes conducted at the facility include casting, machining, polishing, heat treating, plating, assembly, and packaging.

Operations at Plant 1 began in 1935, and at Plant 2 in 1942. Plants 1 and 2 were originally owned and operated by Benjamin Frankel and Associates (Frankel). These facilities were purchased by Airtex in 1958. Airtex conducts the same operations as Frankel did. Plant 3 was originally built in 1954 by Kaufman Manufacturing Company (Kaufman) as a sewing factory. Additions to Plant 3 were made in 1962, 1967, and 1973. Kaufman ceased operations in July 1984, and the facility was sold to the Fairfield Community Industrial Trust. Airtex began leasing space at Plant 3 in November 1988 and began operations there in 1989.

Plant 1 consists of several interconnected buildings with a total floor space of 111,658 square feet. These buildings comprise the main office area, central stores, and Department Nos. 40 (checker operations and automatic screw machines), 42 (machine shop), 44 (punch press), 45 (grinding), 46 (heat treating), 52 (plating) and 76 (raw materials storage), 80 (maintenance), 81 (tool room), and 92-1 (inspection). Department No. 89, general factory, is used by Airtex at all three plants to denote plant-wide operations. Airtex also has offices located south of Plant 1 for research and development, engineering, and printing purposes.

Plant 2 consists of one main building and several outbuildings with a total floor space of 329,400 square feet. The outbuildings are used primarily for the storage of raw materials and products. The main building is divided into several areas, including a receiving area and Department Nos. 43 (machining), 47 (fuel pump assembly), 48 (water pump assembly), 51 (brazer assembly), 54 (diecast), 77 (storage), 80 (maintenance), and 92-2 (inspection).

Plant 3 (also referred to as Department No. 57, electric fuel pump assembly) is located in a two-floor, 52,530 square-foot building. The southern section of the first floor, which measures 11,730 square feet, is used by Leanns Garment Factory. Operations at Plant 3 are primarily electric fuel pump assembly operations.

Airtex currently employs 705 people. Prior to Frankel operations in 1935, Department Nos. 40, 42 and 52 at Plant 1 were part of a wooden shoe heel factory beginning in 1932. The land at all three plants prior to the manufacturing operations described above was used as farm land.

A total of 18 active parts washers were observed during the VSI. These include one each in Department Nos. 43, 57, 80, and 81; two in Department Nos. 42, 54, and 80; and four each in Department Nos. 40 and 44.

## **2.3 WASTE GENERATION AND MANAGEMENT**

Airtex currently generates seven general types of waste at the facility: plating wastewater pretreatment sludge (F006) and treated plating wastewater (nonhazardous) at Plant 1; waste oils (nonhazardous) at all three plants; waste metal grit (nonhazardous) at Plants 1 and 2; waste impregnator water (nonhazardous) at Plant 2; and waste lapping compound (nonhazardous) and waste resin (nonhazardous) at Plant 3. These wastes are generated and managed at various locations at the facility. SWMUs and their current status are identified in Table 1. The locations of SWMUs and AOCs in relation to the facility layout are shown in Figures 2, 3, and 4. Wastes generated at the facility are listed in Table 2. Facility generation and management of these wastes, as well as former wastes generated at the facility, are discussed below.

The only hazardous waste stream currently generated by the facility is plating wastewater pretreatment sludge (F006) from chromium and zinc plating operations, which is generated by the Plating Wastewater Pretreatment System (SWMU 6) at Plant 1. The sludge is accumulated in 55-gallon drums, which are taken to the Former Plant 1 RCRA Container Storage Area (SWMU 4) where they are kept for less than 90-day storage before being taken off site for disposal. The plating sludge is taken off site by Chemical Waste Management of Fort Wayne, Indiana (EPA Identification No. IND 078 911 146) to the Chemical Waste Management owned Adams Center Landfill in Fort Wayne. Airtex generated approximately 2,200 gallons of this waste in 1992. The plating wastewater pretreatment sludge was originally misclassified on the facility's Notification of Hazardous Waste Activity and Part A permit application as containing cyanide (F007 and F008). Facility representatives state that cyanide plating has not been conducted since before 1972. No additional information about the cyanide plating is available. Treated plating wastewater (nonhazardous) from SWMU 6 is discharged to the Fairfield municipal sewer under IEPA wastewater permit No. 1992-EP-1834. SWMU 6 treats and discharges about 20 gallons of wastewater per minute. Untreated plating wastewater was reportedly discharged to the Former Plating Wastewater Discharge Area (AOC 2) prior to 1972 (see Section 2.4).

The facility generates waste oil (nonhazardous) from several different machining and cleaning operations at both Plants 1 and 2. These waste oils include waste cutting oil, used hydraulic oil, waste mineral spirits [greater than 140 degrees Fahrenheit (°F) flash point], and waste grinding oil. These waste oils are accumulated in Dirty Oil Satellite Accumulation Areas (SAA) (SWMU 1) located in Plants 1 and 2. When the satellite accumulation drums containing

**TABLE 1**  
**SOLID WASTE MANAGEMENT UNITS**

<u>SWMU Number/(Plant)</u>	<u>SWMU Name</u>	<u>RCRA Hazardous Waste Management Unit<sup>a</sup></u>	<u>Status</u>
1/(1 and 2)	Dirty Oil SAAs	No	Active
2/(1)	Former Outdoor Waste Oil Storage Area	No	Inactive
3/(1 and 2)	Metal Grit SAAs	No	Active
4/(1)	Former Plant 1 RCRA Container Storage Area	Yes	Active. Underwent RCRA closure in 1986. This unit is now used for less than 90- day storage.
5/(1)	Plant 1 Cast Iron Boring Hopper Storage Area	No	Active
6/(1)	Plating Wastewater Pretreatment System	No	Active
7/(1 and 2)	Former Waste Oil Underground Storage Tanks	No	Inactive; Removed
8/(1 and 2)	Waste Oil for Reclamation Storage Tanks	No	Active
9/(2)	Wastewater Evaporation System	No	Active
10/(2)	Hanchett Pit Waste Coolant Treatment System	No	Active
11/(2)	Former Plant 2 RCRA Container Storage Area	Yes	Active. Hazardous waste no longer stored in this area; area listed on Part A permit application but never underwent RCRA closure.
12/(2)	Former Waste TCE Distillation Unit	No	Inactive
13/(2)	Special Waste Collection Dumpster	No	Active
14/(3)	Plant 3 Waste Accumulation Areas	No	Active

Note:

<sup>a</sup>

A RCRA hazardous waste management unit is one that currently requires or  
formerly required submittal of a RCRA Part A or Part B permit application.



**TABLE 2**  
**SOLID WASTES**

<u>Current Wastes/EPA Waste Code<sup>a</sup></u>	<u>Source/(Plant)</u>	<u>Solid Waste Management Unit<sup>b</sup></u>
Plating Wastewater Pretreatment Sludge/(F006))	Chromium, zinc, and cyanide plating/(1)	4 and 6
Treated Plating Wastewater/(NA)	Chromium, zinc, and cyanide plating/(1)	6
Waste Oil/(NA)	Cooling, quenching, machining, and cleaning operations/(1, 2 and 3)	1, 2, 5, 7, 8, 9, 11 and 14
Waste Oil and Water Mixture/(NA)	Cooling, quenching, machining, and cleaning operations/(1 and 2)	1, 9, and 11
Cast Iron Borings/(NA)	Machining/(1 and 2)	5 and 11
Metal Grit/(NA)	Machining and polishing operations/(1 and 2)	3, 10, and 13
Waste Impregnator Water/(NA)	Metal impregnating operations/(2)	None
Waste Resin/(NA)	Electronic fuel pump manufacturing/(3)	14
Waste Lapping Compound/(NA)	Electronic fuel pump manufacturing/(3)	14
Waste Lapping Compound mixed with Water/(NA)	Electric fuel pump manufacturing/(3)	9 and 14

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Notes:

- <sup>a</sup> Not applicable (NA) designates nonhazardous waste.
  - <sup>b</sup> "None" indicates that the waste stream is not managed on site.
  - <sup>c</sup> No longer generated at the facility.
-

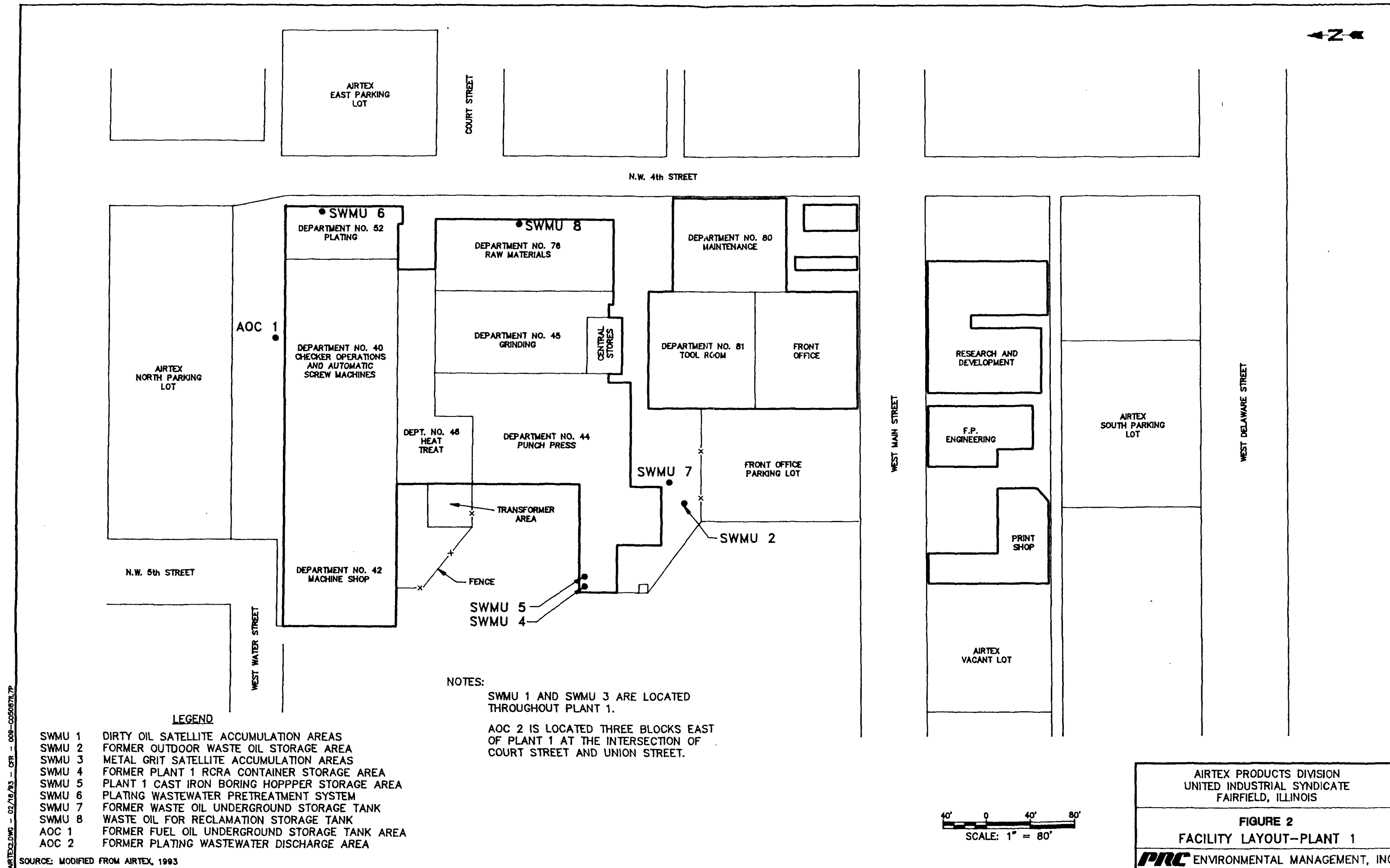
**TABLE 2 (Continued)**

<b>SOLID WASTES</b>		
<u>Former Wastes<sup>c</sup>/EPA Waste Code<sup>a</sup></u>	<u>Source/(Plant)</u>	<u>Solid Waste Management Unit<sup>b</sup></u>
Waste TCE and Waste TCE Still Bottoms/(F001) <sup>c</sup>	Parts cleaning/(1 and 2)	4, 11, and 12
Quench Bath Sludge from Heat Treating/(F010) <sup>c</sup>	Heat treating operations/(1)	4
Heat Treating Waste Sodium Cyanide Base/(F011) <sup>c</sup>	Heat treating operations/(1)	4

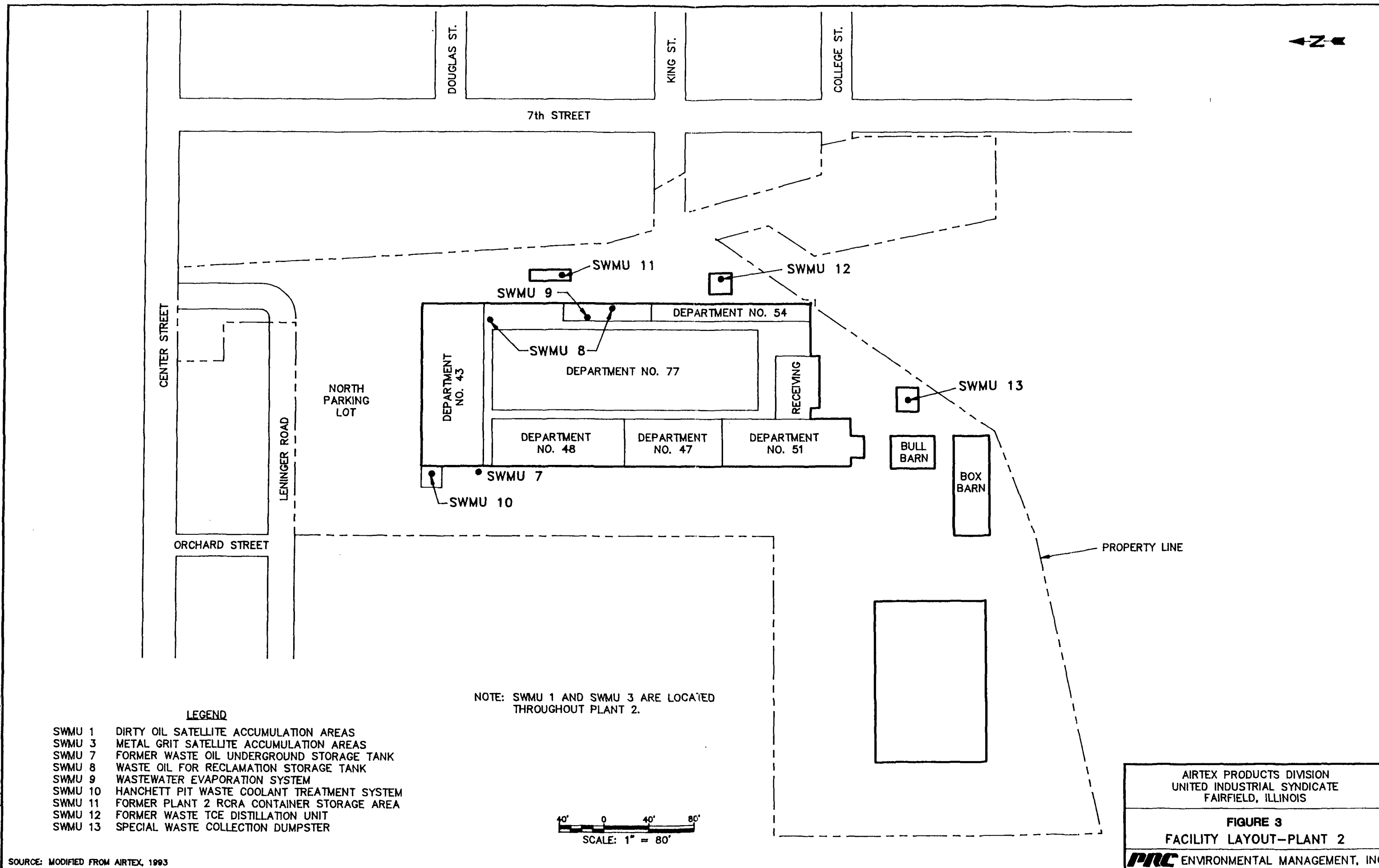
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**Notes:**

- <sup>a</sup> Not applicable (NA) designates nonhazardous waste.
- <sup>b</sup> "None" indicates that the waste stream is not managed on site.
- <sup>c</sup> No longer generated at the facility.
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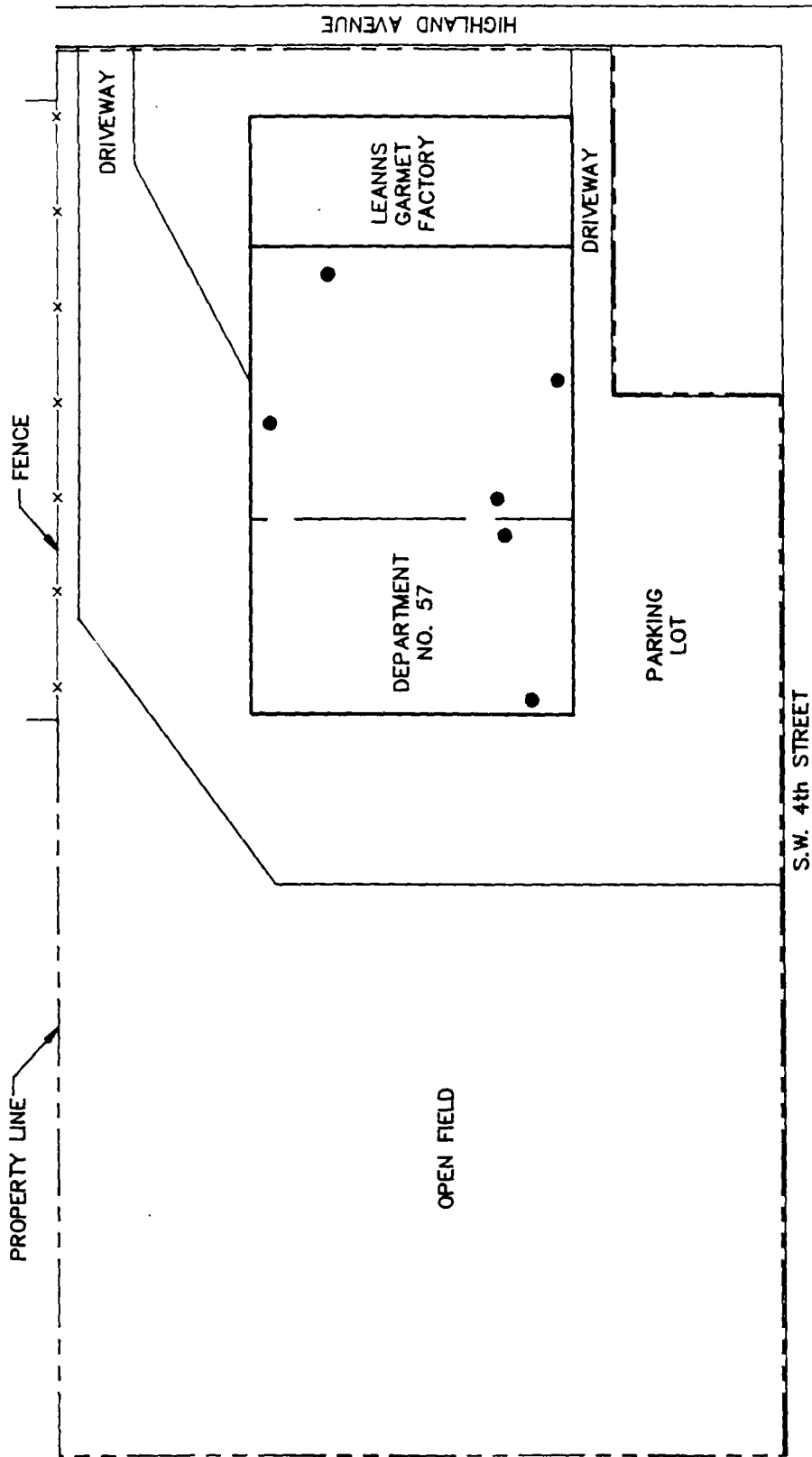


- LEGEND**
- SWMU 1 DIRTY OIL SATELLITE ACCUMULATION AREAS
  - SWMU 3 METAL GRIT SATELLITE ACCUMULATION AREAS
  - SWMU 7 FORMER WASTE OIL UNDERGROUND STORAGE TANK
  - SWMU 8 WASTE OIL FOR RECLAMATION STORAGE TANK
  - SWMU 9 WASTEWATER EVAPORATION SYSTEM
  - SWMU 10 HANCHETT PIT WASTE COOLANT TREATMENT SYSTEM
  - SWMU 11 FORMER PLANT 2 RCRA CONTAINER STORAGE AREA
  - SWMU 12 FORMER WASTE TCE DISTILLATION UNIT
  - SWMU 13 SPECIAL WASTE COLLECTION DUMPSTER

NOTE: SWMU 1 AND SWMU 3 ARE LOCATED THROUGHOUT PLANT 2.

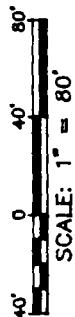
40' 0 40' 80'  
SCALE: 1" = 80'

AIRTEX PRODUCTS DIVISION UNITED INDUSTRIAL SYNDICATE FAIRFIELD, ILLINOIS
<b>FIGURE 3</b> FACILITY LAYOUT-PLANT 2
<b>PRC</b> ENVIRONMENTAL MANAGEMENT, INC.



**LEGEND**

- SWMU 14--PLANT 3 WASTE ACCUMULATION AREAS



AIRTEX PRODUCTS DIVISION  
UNITED INDUSTRIAL SYNDICATE  
FAIRFIELD, ILLINOIS

**FIGURE 4**

**FACILITY LAYOUT--PLANT 3**

**PMC** ENVIRONMENTAL MANAGEMENT, INC.

only waste oil (no water) are full, they are taken to the Waste Oil for Reclamation Storage Tanks (SWMU 8) for storage. Dirty Oil SAAs (SWMU 1) used to collect waste oil and water mixtures are taken to the Wastewater Evaporation System (SWMU 9) to remove the water. Waste oil from SWMU 8 is taken off site for treatment by First Recovery, Terre Haute, Indiana (EPA Identification No. KYD 981 807 274), a division of Ecogard, Inc. of Lexington, Kentucky. First Recovery operates a refinery that recovers the various waste oils. Airtex generated a total of 43,115 gallons of waste oil in 1992. A waste oil analysis is included in Attachment D.

Waste oil is generated at the Wastewater Evaporation System (SWMU 9) from the treatment of various waste oil and water mixtures. Waste oil and water mixtures are generated in the following manners:

1. Various parts washing operations use soap and water to remove oil from various parts, creating a wastewater and oil mixture that is taken to SWMU 9 when it is no longer effective for cleaning purposes.
2. Various quenching operations also generate waste oil and water mixtures (collected in Dirty Oil SAAs, SWMU 1) that are taken to SWMU 9 for treatment.
3. Cast iron borings are collected in hoppers throughout Plants 1 and 2. The hoppers are stored at the Plant 1 Cast Iron Boring Hopper Storage Area (SWMU 5) and the Former Plant 2 RCRA Container Storage Area (SWMU 11). At SWMU 11, the hoppers and waste oil are emptied into a truck trailer. Waste oil remaining on the borings is allowed to collect in the bottom of the hoppers, and this waste oil then drains from the truck trailer to a concrete sump located at SWMU 11. Rainwater entering the sump generates a wastewater and oil mixture, which is then taken to SWMU 9 for treatment.

About 25 gallons of waste oil and water mixture is treated per hour by the evaporation system to remove the water, generating waste oil. The waste oil is then taken to SWMU 8 for storage before being taken off site for treatment by First Recovery.

Prior to the use of SWMU 8, the facility used the Former Outdoor Waste Oil Storage Area (SWMU 2) and the Former Waste Oil USTs (SWMU 7) to accumulate waste oils before they were disposed of off site.

A large amount of waste metal grit (nonhazardous) is also generated by the facility. This waste is considered a special waste by IEPA. It consists of grinding grit (Special Waste Permit No. 841549), Hanchett pit grit (Special Waste Permit No. 850126), and sandblast grit (Special Waste Permit No. 841548). These metal grits are generated by various machining and polishing operations at Plant 1 and 2. The wastes are collected in Metal Grit SAAs (SWMU 3) located throughout Plants 1 and 2 and at the Hanchett Pit Waste Coolant Treatment System (SWMU 10). As the various containers and hoppers used to collect the grit are filled, they are taken to the

Special Waste Collection Dumpster (SWMU 13) for storage before being taken off site for disposal by Sanitation Service, Inc. (Sanitation) to their landfill in Effingham, Illinois. Sanitation does not have an EPA identification number. Sandblast grit generated by sandblast machines is collected in 55-gallon drums (also part of SWMU 3, Metal Grit SAAs). Airtex places each 55-gallon drum of sandblast grit and its contents into SWMU 13 for disposal. Sanitation removed about 3,025 gallons of sandblast grit and 69 cubic yards of grinding grit and Hancett pit grit from the Airtex plants in 1992.

Waste impregnator water (nonhazardous) is generated from a metal impregnating operation at Plant 2. The water is used repeatedly by the impregnator process until it can no longer be used. It is then drained directly to the sanitary sewer system. There is no SWMU associated with this waste. A waste analysis for this waste stream is included in Attachment D. The facility only generates this waste periodically, and does not track the amount of this waste generated.

Waste resin, waste lapping compound, waste lapping compound mixed with water, and waste oil are generated at Plant 3 from the manufacture and assembly of various electronic fuel pump parts. These wastes are collected in 55-gallon drums in the Plant 3 Waste Accumulation Areas (SWMU 14). Waste resin and waste lapping compound are disposed off site by Sanitation in the Effingham Landfill under Special Waste Permit Nos. 890478 (waste lapping compound) and 891236 (waste resin). Sanitation removed 2 cubic yards of waste lapping compound and 275 gallons of waste resin from the facility in 1992. Waste lapping compound mixed with water is taken to the Wastewater Evaporation System (SWMU 9) to remove the wastewater. The remaining material is placed into Waste Oil for Reclamation Storage Tanks (SWMU 8) for storage. Waste oil is taken to a SWMU 8 tank at either Plant 1 or 2 for storage before off site disposal.

Trichloroethylene (TCE) has also been used by the facility in two vapor degreasers for parts-cleaning operations. One of the vapor degreasers was located at the present location of the Waste Oil for Reclamation Storage Tank (SWMU 8), located in Plant 2 near the Wastewater Evaporation System (SWMU 9). The other vapor degreaser was located near the Dirty Oil SAA (SWMU 1) located in the Plant 1 Heat Treating Department (Department No. 46). Operation of the vapor degreaser at Plant 1 ceased before 1977 and at Plant 2 in 1987. No information regarding waste storage was available. No evidence of either degreaser was noted during the VSI. The operation of the vapor degreasers resulted in the generation of waste TCE (F001). This waste was collected in 55-gallon drums which were stored at the Former Plant 1 RCRA Container Storage Area (SWMU 4) and the Former Plant 2 RCRA Container Storage Area (SWMU 11). The waste solvent was then taken off site for disposal. Between 1984 and 1987, waste TCE was

recovered for reuse through distillation at the Former Waste TCE Distillation Unit (SWMU 12). The distillation process generated waste TCE still bottoms, which were then stored at SWMUs 4 and 11 before being taken off site. The waste TCE and waste TCE still bottoms were taken off site to either Ulrich Chemical Inc. in Evansville, Indiana (EPA Identification No. IND 044 198 034) or Chemical Waste Management in Emelle, Alabama (EPA Identification No. ALD 000 622 464). The facility discontinued its use of TCE in 1987.

In the past, the facility has generated other hazardous wastes including quench bath sludge from heat treating (F010) (less than 0.5 percent cyanide) and heat treating waste sodium cyanide base (F011) (7.8 percent cyanide). These wastes were generated by the facility until March 1, 1982, and were stored in the Former Plant 1 RCRA Container Storage Area (SWMU 4). Records indicate that the facility shipped these wastes to the Conservation Chemical Company in Gary, Indiana (EPA Identification No. IND 040 888 992). This waste was then disposed of at the U.S. Ecology Company facility in Sheffield, Illinois (ILD 045 063 450) (Airtex, 1981a).

## **2.4 HISTORY OF DOCUMENTED RELEASES**

This section discusses the history of documented releases to ground water, surface water, air, and on-site soils at the facility.

On June 22, 1992, the facility reported the release of an unknown amount of No. 2 heating oil from two 20,000-gallon USTs in the Former Fuel Oil UST Area (AOC 1) (IESDA, 1992). The release was discovered when the tanks were removed (Airtex, 1992). The facility determined that the release was due to overfilling, because the staining was observed only around the fill pipe. The tank itself appeared to be in good condition. The facility excavated as much of the contaminated area as possible without damaging the building. Then the area was backfilled so that normal facility operations could be conducted. Samples from the area collected during the removal indicated the existence of various polyaromatic hydrocarbons (PAH) in the subsurface soils of up to 300 micrograms per kilogram. A complete summary of the analytical results included in Attachment D. An additional investigation began on January 14, 1993 to collect samples for benzene, ethylbenzene, toluene, and xylene determination from a total of 16 different boreholes (see Attachment B). The purpose of this investigation is to define the extent of contamination, IEPA has determined that no more excavation will be required because of the potential for damage to the facility building if further excavation was conducted (IEPA, 1993).

Sometime before 1972, an unknown amount of plating wastewater was discharged untreated to a storm sewer that, in turn, discharged directly to Johnson Creek near the intersection of Court and Union Streets, the Former Plating Wastewater Discharge Area (AOC 2),



approximately 3 blocks east of the facility. No sampling has been conducted in this area to determine if contamination exists. Johnson Creek, is a wet-weather drainage ditch that eventually empties into the Little Wabash River, about 7 miles east of Fairfield. No other information is available.

## **2.5 REGULATORY HISTORY**

Airtex filed a Notification of Hazardous Waste Activity on July 18, 1980 for the generation, treatment, storage, and disposal of F001, F002, F007, F008, F010, and F011 hazardous wastes at both Plants 1 and 2 (Airtex, 1980a). The facility has used the same EPA identification number to generate, store, and transport hazardous wastes at both Plants 1 and 2 until 1987. (This is illegal under 40 Code of Federal Regulation Part 260.10). The facility filed a Part A permit application on October 16, 1980. The application listed two separate container storage areas (S01) with a total capacity of 5,188 gallons. The hazardous waste codes listed included F001 (4 tons per year), F002 (800 pounds per year), F008 (1,000 pounds per year), F010 (780 pounds per year), and F011 (40 tons per year) (Airtex, 1980b). On March 2, 1982, the facility revised their characterization of the plating sludge waste generated at the facility from F008 to F006 (1,000 gallons per year), because the sludge did not contain cyanide (Airtex, 1982b). Airtex ceased generating F010 and F011 wastes on March 1, 1982, and the last off-site shipments of these wastes were made on July 26, 1982 (Airtex, 1982c). On March 17, 1987, the facility discontinued all use of TCE (F001) solvents, and all waste TCE was shipped off site on the same day (IEPA, 1987a). The facility is currently a generator only of F006 waste at Plant 1.

On March 12, 1985, the facility was notified of several closure plan deficiencies found during a February 20, 1985 document review (IEPA, 1985b). In response, a closure plan was submitted by Andrews Environmental Engineering Inc. (Andrews) for Airtex on March 20, 1985 (Andrews, 1985). The closure plan addressed the 12- by 20-foot Former Plant 1 RCRA Container Storage Area (SWMU 4) with a 100-drum capacity that was located inside one of the facility buildings at Plant 1. The closure plan was approved by IEPA on June 10, 1985 (IEPA, 1985c). Closure certification was submitted by the facility on August 16, 1985 (HMG, 1985). A closure inspection was conducted by IEPA on September 6, 1985, which found the closure to have been conducted in accordance with the approved closure plan. Closure of SWMU 4 was approved by IEPA on January 31, 1986 (IEPA, 1985d; 1986a).

A RCRA inspection was conducted at the facility on September 24, 1981 by IEPA. The inspection found a wide variety of paperwork violations, including the lack of a contingency plan and an operating record (IEPA, 1981). The facility was notified of these deficiencies on February 5, 1981 (IEPA, 1982a). The facility responded to these deficiencies on February 15,

1982 (Airtex, 1982a). No response from IEPA was found during a review of the facility files. Another IEPA inspection was conducted on October 25, 1984, which found continuing paperwork problems with the facility's operating and training records (IEPA, 1984a). The facility was notified of these deficiencies on November 5, 1984 (IEPA, 1984b). The facility responded to these deficiencies on November 8, 1984, and the responses approved as adequate by IEPA on February 5, 1985 (Airtex, 1984; IEPA, 1985a). An annual IEPA inspection conducted on June 13, 1986 found only minor paperwork violations that were primarily related to the facility's training program and contingency plan (IEPA, 1986b). The facility was notified of these deficiencies in a compliance inquiry letter dated July 16, 1986 and the facility responded to these deficiencies on July 28, 1986 (IEPA, 1986c, Airtex, 1986). The facility's responses were determined to be adequate on August 15, 1986 (IEPA, 1986d).

The Airtex facility received another compliance inquiry letter dated August 25, 1987, for violations stemming from a June 18, 1987 annual RCRA (including land disposal restriction) inspection by the IEPA. The inspection identified apparent discrepancies between the facility's manifests and annual report, and the failure of the facility to determine whether or not waste oil generated by the facility was a hazardous waste (IEPA, 1987a). On September 8, 1987, Andrews submitted information on behalf of Airtex to demonstrate that the manifest and annual report did agree, and that the waste oil was nonhazardous (Andrews, 1987). IEPA determined the facility's response adequate on October 14, 1987 (IEPA, 1987b). At the next RCRA inspection conducted by IEPA on January 30, 1990, no violations were found (IEPA, 1990a; 1990b).

The facility has air permits for various exhaust systems at Plants 1 and 2 under IEPA Identification No. 191010AAD and at Plant 3 under Identification No. 191010AAX. Emission sources at Plant 1 include an annealing furnace, a Ranshoff washer, the zinc plating line, a Wheelabrator dust collector, the sludge drier associated with the Plating Wastewater Pretreatment System (SWMU 6), and three natural gas boilers. Sources at Plant 2 include a Ranshoff washer, a de-rusting tank, the Udyllite machine, two aluminum melting furnaces, a Cincinnati parts washer, two Wheelabrator dust collectors, a natural gas boiler, a brazing furnace, and the Wastewater Evaporation System (SWMU 9). Plant 3 emission sources include two fuel pump testers, an electric curing oven, and a Torit dust collector. No records of any air pollution violations were found in the files reviewed.

The facility had a wastewater pretreatment permit (1972-EE-961) for the destruction of chromium plating waste. This permit was for a batch treatment system and expired in 1977. The facility did not renew the permit. The batch treatment system was replaced with a continuous Plating Wastewater Pretreatment System (SWMU 6) which began operation on February 16, 1983. The facility was issued permit 1982-EE-1055 for the continuous system. This permit required

the facility to monitor for cadmium, trivalent and hexvalent chromium, copper, cyanide, iron, lead, nickel, zinc, flow, and pH. Airtex's most recent permit for this system, 1992-EP-1834, became effective on November 17, 1992, and expires October 1, 1997. The permit covers the facility's chromium reduction system (SWMU 6) (IEPA, 1992a). The permit sets limits on the following compounds: cyanide, copper, nickel, chromium, zinc, lead, cadmium, silver, and total toxic organics.

There has been no CERCLA activity at the site.

A total of four USTs have been located at the facility. The closure of all USTs at the facility has been monitored and approved by IEPA. Two of the USTs comprise the Former Waste Oil USTs (SWMU 7) and the remaining two tanks comprise the Former Fuel Oil UST Area (AOC 1). Continuing remedial investigation activities at AOC 1 are being monitored by IEPA.

## **2.6 ENVIRONMENTAL SETTING**

This section describes the climate; flood plain and surface water; geology and soils; and ground water in the vicinity of the facility.

### **2.6.1 Climate**

The climate in Wayne County is continental, with cold winters, hot summers, and frequent short period fluctuations in temperature, humidity, cloudiness, and wind direction. The average daily temperature is 56.9 degrees Fahrenheit (°F). The lowest average daily temperature is 33.4 °F in January. The highest average daily temperature is 79.0 °F in July (Ruffner, 1978).

The total annual precipitation for the county is 42.29 inches. The mean annual lake evaporation for the area is about 35.5 inches (USDC, 1968). The 1-year, 24-hour maximum rainfall is about 2.75 inches (USDC, 1963). The prevailing wind is from the south at an average speed of 9.45 miles per hour (mph). Average wind speed is highest in March at 11.8 mph from the west-northwest (Ruffner, 1978).

### **2.6.2 Flood Plain and Surface Water**

The nearest surface water body to all three Airtex plants is Johnson Creek, an intermittent surface water runoff ditch that runs throughout Fairfield. This creek runs approximately 0.25 mile northeast of Plant 1 and south of Plant 2. The creek runs between Plant 3 and the Wayne

Feeds facility to its north. Johnson Creek flows east from Fairfield to the Little Wabash River, about 7 miles east of the city. Other surface waters near the Airtex plants include small lakes at Lakeside Park (0.5 mile north of Plant 1) and French Memorial Park (0.75 mile northeast of Plant 1). Several other smaller, unnamed ponds and creeks were identified within 2 miles of each plant. None of the plants are located within 100- or 500- year flood plains.

Surface water runoff from Plant 1 would be directed to the municipal storm sewers, discharging to Johnson Creek. The runoff from Plants 2 and 3 would also ultimately flow to Johnson Creek.

### **2.6.3 Geology and Soils**

Soils in the area are characterized by the Wynoose silt loam and Bluford silt loam. Both soil types are characterized by nearly level, poorly drained soils with 7- to 9-inch grayish brown surface layers followed by brownish gray and yellowish brown subsoils up to 60 inches. The poor drainage characteristics of these soils result in typical high water table depths of only 1 to 3 feet below the surface.

Unconsolidated deposits, or drift, underlying the area consist of Pleistocene ground moraine deposits of Illinoian age. These deposits are predominantly till, which is comprised of an unsorted mixture of pebbles, cobbles, and other rock fragments in a matrix of silt, clay, and sand. Some sand and gravel lenses may occur within the till. Drift deposits in the area are between 25 and 50 feet thick (Piskin and Bergstrom, 1975).

The uppermost bedrock underlying the area is of the Pennsylvanian is age, and consists of sandstones, shales, limestone, and coal beds, which are part of the Tradewater-Caseyville, Carbondale, and McLeansboro Series. These rocks are about 1,000 feet thick, and the sandstone beds are generally water-yielding. Beneath the Pennsylvanian bedrock are sequences of sandstone, limestone, and shale that form the Upper Mississippian Chester Series, which is about 1,000 feet thick in the region. The underlying Mississippian rocks are of the Valmeyer Series, and chiefly consist of limestones with some shale in the lower part (Pryor, 1956).

### **2.6.4 Ground Water**

The only potential ground-water supplies in the area are intermittent sand and gravel lenses in the overlying glacial drift. Historical well logs indicate water levels from 4 to 40 feet below ground surface. No active wells have been identified in the area (ISGS, 1993; PRC, 1993). The sandstone strata in the upper part of the Pennsylvanian system yield some ground-water

supplies; however, no active water wells were identified within 3 miles of the three Airtex plants. No information about ground-water flow direction was found.

## **2.7 RECEPTORS**

Plant 1 is bordered on the north and east by residential homes, to the south by several commercial office buildings, and on the west by Fairlane Furniture, Red and White Foods, Davis Oil Company, and Fairfield Municipal Light and Power. A Marathon Oil gas station is located directly southeast of the facility across West Main Street.

Plant 2 is surrounded by residential areas to the north, east, and south. L-J Keith and Sons, a vacant building supply warehouse, borders the facility property to the east, and the Illinois Central Railroad separates the facility from a trailer park on the south. B-Way Home Center borders the facility to its west. The area west of B-Way Home Center is primarily rural farm land.

Plant 3 is bordered on the north by the Wayne Feeds grain elevator and to the northeast by Fairfield Community High School. The Fairfield State Garage is located directly east of the facility, followed by a residential area. The south and west sides of the facility are also bordered by a residential area.

Plant 1 occupies approximately 7.42 acres, and Plant 2 about 23.23 acres. Airtex leases space in the Plant 3 building and does not own the property. All three of the plants are located in mixed-use areas. Plants 1 and 2 are fenced in and have a 24-hour guard, and Plant 3 is equipped with a motion detector alarm system. The facility typically operates with two 8-hour shifts per day, except for the heat-treating operations, which operate around the clock.

The population of Fairfield is approximately 6,200 people. The Fairfield Community High School is located less than 0.25 mile northeast of Plant 3, and the Fairfield Junior High School is located less than 0.25 mile southeast of Plant 1. The only potentially sensitive environments identified in the area are small wetlands areas located outside the city about three quarters of a mile to a mile south and southeast of Plant 3. None of the areas identified were more than 2 acres in size.

Drinking water for the city of Fairfield is taken from the Little Wabash River, which is located about 7 miles east of the city. The nearest surface water is Johnson Creek, which flows within 0.25 mile of all three Airtex plants. Johnson Creek is used for recreational purposes. No water wells were identified within 3 miles of the facility.

### **3.0 SOLID WASTE MANAGEMENT UNITS**

This section describes the fifteen SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of documented releases, and PRC's observations. Figures 2, 3, and 4 show the SWMU locations.

#### **SWMU 1**

#### **Dirty Oil SAAs**

##### **Unit Description:**

Five different areas used to accumulate waste oil or waste oil and water mixture in 55-gallon drums were identified during the VSI. These areas include three SAAs at Plant 1 and two SAAs at Plant 2. Each SAA consists of one 55-gallon drum (except for a dirty quench oil and water SAA in Department No. 46, Plant 2, which had two 55-gallon drums). Waste oil was also collected in numerous types of containers and pans underneath most of the facility's manufacturing equipment (Plants 1 and 2). The collection units are all located directly on the concrete floors of the building in which they are located. The waste oil is generated from various maintenance and equipment lubrication operations, from quenching operations during heat treating, and from equipment leaks. Waste oil is taken from the SAAs to the Waste Oil for Reclamation Storage Tanks (SWMU 8). Waste oil and water mixtures are taken to the Wastewater Evaporation System (SWMU 9) at Plant 2 to remove the water before the waste oil is placed in SWMU 8. Waste oil was once placed in the Former Outdoor Waste Oil Storage Area (SWMU 2) and the Former Waste Oil Underground Storage Tanks (SWMU 7) before the use of SWMU 8.

##### **Date of Startup:**

The drum in the Maintenance Department at Plant 1 was placed there one week before the inspection. Facility representatives could not determine the exact start-up date for the other drum SAAs, however, they stated that these units had been in use for at least 10 years. The collection pan SAAs located under the various machinery has been in place since operations began at the facility in 1935.

**Date of Closure:** All of these units are active.

**Wastes Managed:** These SAAs are used to accumulate various nonhazardous waste oils and waste oil and water mixtures generated throughout the plant. Waste oils include waste cutting oil, used hydraulic oil, waste mineral spirits, and waste grinding oil. Waste oil from the SAAs is taken to SWMU 8 for temporary storage before being taken off site. Waste oil and water mixtures are taken to SWMU 9 for treatment. Waste oil is taken off site by First Recovery of Terre Haute, Indiana (EPA Identification No. KYD 981 807 274). The facility manifested 43,115 gallons of waste oil off site in 1992.

**Release Controls:** All of the SAAs are located indoors on concrete floors. No cracks were observed in these floors during the VSI; however, the SAA drum located in Plant 2 was located near a doorway leading outside that was not bermed. There are no floor drains within either plant.

**History of Documented Releases:** There have been no documented releases from any of the SAAs.

**Observations:** Each of the SAA drums were stored with closed lids during the VSI. No evidence of a release was observed near any of the drums; however, waste oil was spilled on the floor in several areas throughout the plant near the collection pan SAAs used to catch oil leaking from various manufacturing equipment (see Photograph Nos. 1 through 5).

## **SWMU 2**

### **Former Outdoor Waste Oil Storage Area**

**Unit Description:** This 40-square-foot area outside of Plant 1 was used for storing 55-gallon drums of waste oil until it was replaced by the Waste Oil for Reclamation Storage Tanks (SWMU 8) in 1990. Drums were brought to this asphalt-paved area from throughout Plant 1 for temporary storage until they could be taken off site for disposal.

**Date of Startup:** Facility representatives could not determine when the use of this area as a drum storage area began. The facility has been in operation since 1935.

**Date of Closure:** This area was replaced by SWMU 8 in 1990.

**Wastes Managed:** This unit was used to store 55-gallon drums containing nonhazardous waste oils generated at the facility. Waste oils include waste cutting oil, used hydraulic oil, waste mineral spirits, and waste grinding oil.

**Release Controls:** This unit was located south of Department No. 44 in an outdoor area paved with asphalt. The area is not bermed.

**History of Documented Releases:** There were no documented releases from this unit while it was in operation.

**Observations:** This area is currently used to store various product chemicals. No waste material was observed in this area, and no evidence of a release was observed (see Photograph No. 6).

### **SWMU 3**

#### **Metal Grit SAAs**

**Unit Description:** Metal grit is generated by several processes throughout the facility. Metal grit includes grinding grit, Hanchett pit grit, and sandblast grit. Grinding grit is generated throughout the facility and is collected in a variety of small containers, hoppers, and 55-gallon drums located near the processes that generate the grit. Hanchett pit grit is generated by the Hanchett Pit Wastewater Treatment System (SWMU 10), and is collected in a hopper. Sandblast grit is generated by various polishing operations throughout the facility. The sandblast grit is collected by dust collectors on the machines, and collected in 55-gallon drums. The accumulated grit in the containers is periodically taken and emptied into the Special Waste Collection Dumpster (SWMU 13) for off-site disposal. Drums used



to collect sandblast grit and their contents are put into the dumpster.

**Date of Startup:** Collection containers and hoppers are located throughout the facility for the collection of metal grit from process equipment. Facility representatives stated that these units have been in use since facility operations began in 1935.

**Date of Closure:** These units are currently active.

**Wastes Managed:** Nonhazardous metal grit is generated throughout the facility. Metal grit includes grinding grit, Hanchett pit grit, and sandblast grit.

**Release Controls:** These units are all located indoors. Buildings at the facility are constructed with concrete floors. No floor drains exist at any of the plants, and no cracks in the floor were observed during the VSI.

**History of Documented Releases:** There have been no documented releases from any of the SAAs.

**Observations:** Each of these units throughout the facility were observed during the VSI. Some evidence of spills were noted on the concrete floors surrounding some of the units (see Photograph No. 7).

#### **SWMU 4**

#### **Former Plant 1 RCRA Container Storage Area**

**Unit Description:** This 12- by 20-foot concrete, fenced, area is located in the northwest corner of Department No. 44, Plant 1. The area is currently used for less than 90-day storage of plating wastewater pretreatment sludge (F006) generated by the facility's Plating Wastewater Pretreatment System (SWMU 6). In the past the area was used for greater than 90-day storage of the plating sludge, waste TCE (F001), and heat treating wastes (F010 and F011).

<b>Date of Startup:</b>	This area has been used for waste storage since before 1980. Facility representatives could not determine the exact date on which this unit began storing waste.
<b>Date of Closure:</b>	This area is currently used for less than 90-day storage of hazardous wastes. IEPA approved RCRA closure of this unit in January 1986.
<b>Wastes Managed:</b>	This area is currently used to store plating wastewater pretreatment sludge (F006) generated at SWMU 6. The sludge is stored here until it is taken off site for disposal by Chemical Waste Management of Fort Wayne, Indiana (EPA Identification No. IND 078 911 146). This area has also been used in the past to store waste TCE and waste TCE still bottoms (F001) from vapor degreasing operations and the Former Waste TCE Distillation Unit (SWMU 12), and waste heat treating wastes containing cyanide (F010 and F011). The last F010 and F011 wastes were generated at the site in February 1982, and use of TCE at the facility ceased in 1987.
<b>Release Controls:</b>	This unit is located indoors on a concrete floor. Some cracks in the floor were observed during the VSI. There are no floor drains at the facility.
<b>History of Documented Releases:</b>	There have been no documented releases from this unit.
<b>Observations:</b>	Three 55-gallon drums of plating sludge were observed in this area during the VSI. The area is surrounded by a locked chain-link fence. Some corrosion of the concrete floor was observed near the drums during the VSI (see Photograph No. 8). Facility representatives stated that although the area now surrounded by the chain-link fence is only 12- by 20-feet (the area specified by the Part A permit application), up to 60 drums at a time have been stored in the general area of this SWMU in the past.

**SWMU 5****Plant 1 Cast Iron Boring Hopper Storage Area**

**Unit Description:** Cast iron borings generated during various metal working operations at the facility are collected in hoppers that are brought to this unit, which is located next to the Former Plant 1 RCRA Container Storage Area (SWMU 4) in Department No. 44. The borings are typically covered by waste oils that drain off the metal into the bottom of the hoppers. The hoppers are taken from Plant 1 to the Former Plant 2 RCRA Container Storage Area (SWMU 11), where they are emptied into a truck trailer for off-site recycling.

**Date of Startup:** This unit was first used to accumulate boring hoppers in 1990.

**Date of Closure:** This unit is active.

**Wastes Managed:** This unit is used to accumulate hoppers of cast iron borings covered with waste oil. Waste oils generated at the facility include waste cutting oil, used hydraulic oil, waste mineral spirits, and waste grinding oil.

**Release Controls:** This unit is located indoors on a concrete floor. No cracks were observed in this area; however, no berm exists between this area and SWMU 4, where corrosion in the floor was observed.

**History of Documented Releases:** There have been no documented releases from the hoppers.

**Observations:** This unit was being used to store six hoppers containing cast iron borings and waste oil during the VSI. No evidence of a release was observed.

**SWMU 6****Plating Wastewater Pretreatment System**

**Unit Description:** This unit is an Advanced Chemicals System Inc. model 1400-series continuous-flow treatment reaction system for chromium reduction treatment of wastewaters generated from chromium and zinc plating operations in Department No. 52. It consists of a 55-

gallon concrete sump, followed by a 1,500-gallon retention tank. Wastewater draining into the sump from the plating area is pumped into the retention tank, then into three 200-gallon wastewater treatment tanks. Wastewater treatment in the tanks includes the addition of sulfuric acid to lower pH, sodium metabisulfite for chromium reduction, caustic soda to raise the pH, and polymer addition to precipitate the metals. From the treatment tanks the wastewater enters a 400-gallon holding tank and then a 1,500-gallon clarifying tank. Sludge (F006) collected in the clarifier is pumped to a filter press. Treated plating wastewater (nonhazardous) leaving the clarifier is discharged to the Fairfield municipal sewer under IEPA wastewater permit No. 1992-EP-1834. Filter cake containing 25 to 30 percent solids from the filter press is put into a sludge drier to further remove any liquid, and then placed into drums. Water leaving the filter press and sludge drier is pumped back to the concrete sump to be retreated. Saturated air leaving the sludge drier passes through a cyclone filter to remove any water, which is pumped to the concrete sump. Air from the cyclone filter is then discharged to the atmosphere. The system treats about 20 gallons per minute.

**Date of Startup:**

The continuous unit was put into service in 1983 to replace a batch treatment system previously located here. Records indicate that prior to 1972 and the installation of the batch treatment system, untreated plating wastewater was disposed of into the storm sewer.

**Date of Closure:**

This unit is active.

**Wastes Managed:**

The pretreatment system generates plating sludge (F006) at the rate of about nine 55-gallon drums every 90 days. Full drums are taken to the Former Plant 1 RCRA Container Storage Area (SWMU 4) for less than 90-day storage. The facility originally misclassified this waste as containing cyanide (F007 and F008) on its 1980 Notification of Hazardous Waste Activity form and Part A permit application. This classification was changed in 1982. Facility representatives stated that although cyanide plating has been conducted at the facility, these operations ceased before 1972. No further information regarding cyanide plating waste at the facility

is available. Treated plating wastewater (nonhazardous) is discharged to the Fairfield Municipal Sewer.

Release Controls:	This unit is located in the Plating Department, Plant 1, on a concrete floor. Open concrete floor drains direct water from the plating area to the concrete floor sump to begin the pretreatment process. The sump has no secondary containment. No cracks were observed in the floor, drains, or sump.
History of Documented Releases:	There have been no documented releases from this unit; however, a review of the available file information indicates that before 1972, untreated plating wastewater was discharged to a storm sewer, which discharged into Johnson Creek.
Observations:	This unit was in operation during the VSI. No evidence of a release was observed (see Photograph Nos. 9 and 10).

#### **SWMU 7**

#### **Former Waste Oil Underground Storage Tanks**

Unit Description:	These USTs include a 3,763-gallon steel tank at Plant 1 and a 2,056-gallon steel tank at Plant 2 used to store waste oil generated at the facility. The tank at Plant 2 was removed in 1984 from its location near the northwest corner of the building and the tank at Plant 1 was removed in 1988 from its location south of Department No. 44. The tanks were used in conjunction with the Former Outdoor Waste Oil Storage Area (SWMU 2) to collect waste oil generated throughout the facility before the Waste Oil for Reclamation Storage Tanks (SWMU 8) were installed.
Date of Startup:	A review of the underground storage tank removal records and discussions with facility representatives did not determine the installation date of the tanks; however, both tanks were estimated to be about 15 years old in 1986.
Date of Closure:	The tank at Plant 2 was removed in 1984 and the tank at Plant 1 on August 9, 1988. According to closure records reviewed during the

VSI, no evidence of a release was observed when each of the tanks were removed. The closure reports were filed with IEPA.

**Wastes Managed:** These tanks were used to store waste oil generated at the facility before the waste oil was taken off site. Waste oils generated at the facility include waste cutting oil, used hydraulic oil, waste mineral spirits, and waste grinding oil.

**Release Controls:** The tanks were unlined steel tanks. No evidence of a release was observed when the tanks were removed.

**History of Documented Releases:** There have been no documented releases from this unit. No evidence of a release was observed when the tanks were removed. No sampling was done when the tanks were removed.

**Observations:** The area where the Plant 1 tank was once located is currently paved by asphalt in an area south of Department No. 44. The area where the Plant 2 tank was once located is currently covered by decorative rock. No evidence of the former tanks or their location was observable (see Photograph No. 11).

## **SWMU 8**

### **Waste Oil for Reclamation Storage Tanks**

**Unit Description:** Airtex has three 1,500-gallon aboveground polyethylene tanks that are used to store waste oil generated at the facility. One of the tanks is located at Plant 1 in Department No. 76, and the other two tanks are located at Plant 2 in Department No. 89. Waste oil is brought to the tanks from Dirty Oil SAAs (SWMU 1) and the Wastewater Evaporation System (SWMU 9) for temporary storage before being taken off site for reuse. The storage tank located in Plant 2 near SWMU 10 is located in an area that was previously the location of a TCE vapor degreaser.

**Date of Startup:** The facility began using the waste oil storage tanks in 1990. Prior to their use, the facility stored waste oil in drums at the Former Outdoor Waste Oil Storage Area (SWMU 2) and in the Former

Waste Oil Underground Storage Tanks (SWMU 7). The use of the TCE degreaser in this area ceased in 1987.

**Date of Closure:** The tanks are currently in use.

**Wastes Managed:** These units are used to collect waste oils generated throughout the facility. Waste oils generated at the facility include waste cutting oil, used hydraulic oil, waste mineral spirits, and waste grinding oil.

**Release Controls:** These tanks are all located indoors on concrete floors. No cracks were observed in the tank storage areas. There are no floor drains at the facility.

**History of Documented Releases:** There have been no documented releases from these units.

**Observations:** These tanks were all in use at the time of the VSI. The tanks appeared to be well maintained and no evidence of a release was noted (see Photograph Nos. 12 and 13).

#### **SWMU 9**

#### **Wastewater Evaporation System**

**Unit Description:** Waste oil and water mixtures and waste lapping compound mixed with water is pumped to this unit, located on the east side of Plant 2, via overhead lines or brought in 55-gallon drums to remove the water by evaporation. The unit is a Samsco, Inc. Model 600 Series evaporator. The system has a total heat output of 395,000 British thermal units and can treat up to 25 gallons per hour; holding up to 314 gallons while operating in either a batch or continuous mode. It is supplied by two 3,000-gallon aboveground polyethylene storage tanks. Waste oil generated by the system is taken to the Waste Oil for Reclamation Storage Tanks (SWMU 8) located at Plant 2. Water evaporated from the system is discharged to the atmosphere.

**Date of Startup:** The facility began the use of this system in 1990. Prior to this date, the wastewater was taken to a local landfill.

**Date of Closure:** This unit is active.

**Wastes Managed:** This unit is used to recover nonhazardous waste oil and water mixture and nonhazardous waste lapping compound mixed with water for off-site reclamation. The waste oil and water mixture is generated from various activities, including the Udylite and Ranshoff parts washers (see Photographs No. 14 and 15), which used soap and water to remove waste oil from various parts. Waste oils generated at the facility include waste cutting oil, used hydraulic oil, and waste grinding oil. Mineral spirits waste is not treated by this system.

**Release Controls:** This unit is located indoors on a concrete floor. No floor drains are located within the plant. Emissions from the evaporator are vented to the atmosphere.

**History of Documented Releases:** There have been no documented releases from this unit.

**Observations:** This unit was in operation during the VSI. No evidence of a release at the evaporation unit was observed (see Photograph No. 16).

#### **SWMU 10**

#### **Hanchett Pit Waste Coolant Treatment System**

**Unit Description:** This unit uses paper filters to remove metal grit from surface grinding coolant used at Department No. 43 in Plant 2. Waste coolant enters into the system to a 2,000 gallon concrete sump. The coolant is then pumped onto the paper filters to remove the metal grit. The filtered coolant is recycled to the process area for reuse. The metal grit (nonhazardous) is collected in hoppers that are taken to the Special Waste Collection Dumpster (SWMU 13).

**Date of Startup:** This unit was first put into use in 1967.



**Date of Closure:** This unit is active.

**Wastes Managed:** This unit is used to remove metal grit from surface grinding coolant. The metal grit is taken in hoppers to SWMU 13.

**Release Controls:** The filtration system is located in a 1,900-gallon concrete sump surrounded by a concrete floor. No cracks in the concrete were observed. The sump contains coolant that is pumped back to the process area for reuse.

**History of Documented Releases:** There have been no documented releases from this unit.

**Observations:** This unit was in use during the VSI. No evidence of a release was observed, although the bottom of the concrete sump could not be inspected because there was coolant in the system (see Photograph No. 17).

#### **SWMU 11**

#### **Former Plant 2 RCRA-Container Storage Area**

**Unit Description:** This unit is an 18- by 15-foot asphalt-paved container storage area located just south of an aluminum ingot storage building at Plant 2. It was listed in the facility's 1980 Part A permit application as a hazardous waste storage area. Facility representatives stated that this area was used from 1984 to 1987 for the storage of waste TCE (F001) before it was taken to the Former Waste TCE Distillation Unit (SWMU 12). No records exist to document how long wastes were stored here.

In 1990, a new building was extended over the RCRA-container storage area, and the facility began using the unit for collecting cast iron borings in a truck trailer. The borings are brought to this unit in hoppers from both the temporary storage at the Plant 1 Cast Iron Boring Hopper Storage Area (SWMU 5) and Plant 2 manufacturing operations. A 4- by 8- by 5-foot concrete sump

was installed at this unit in 1990 to collect waste oil draining from the truck trailer.

<b>Date of Startup:</b>	Facility representatives could not determine a startup date for this unit. Waste TCE was stored here prior to distillation at the Former Waste TCE Distillation Unit (SWMU 12) beginning in 1984. The use of this area prior to 1984 could not be determined. Airtex began using the building in 1990 to collect cast iron borings covered with waste oil. Before 1990, the building was used to store aluminum ingots.
<b>Date of Closure:</b>	This building is currently used to collect cast iron borings and waste oil. Storage of waste TCE in this area ceased when the use of SWMU 12 and TCE at the facility ended in 1987. This SWMU has never undergone RCRA closure.
<b>Wastes Managed:</b>	This area is currently used to store cast iron borings. The waste oil and water mixture that drains into the concrete sump at this unit are taken to the Wastewater Evaporation System (SWMU 9) for waste oil recovery. Waste TCE (F001) stored at this unit in the past was generated during parts-washing operations and was taken from this unit to SWMU 12 to recover the solvent for reuse.
<b>Release Controls:</b>	This building has a concrete floor. The truck trailer is parked on a concrete, bermed area which drains to a concrete sump. No cracks in the floor were observed during the VSI.
<b>History of Documented Releases:</b>	There have been no documented releases from this unit.
<b>Observations:</b>	This unit was being used to collect cast iron borings in the truck trailer during the VSI. No evidence of the former RCRA container storage area was visible. No waste oil was observed draining from the trailer during the VSI; however, waste oil and water mixture were observed in the concrete sump (see Photograph No. 18).

**SWMU 12****Former Waste TCE Distillation Unit****Unit Description:**

A Detrex distillation unit used to reclaim waste TCE was used by the facility from 1984 until 1987. Waste TCE was brought to the still from the Former Plant 2 RCRA Container Storage Area (SWMU 11). The recovered solvent was reused at the facility, and still bottoms generated by the unit were collected in drums and stored at the Former Plant 1 RCRA Container Storage Area (SWMU 4) or SWMU 11 before being taken off site for disposal. The use of this unit ended when the facility ceased its use of TCE in 1987 and the unit removed. The capacity of the unit could not be determined by facility personnel. This area is currently unused by the facility.

**Date of Startup:**

This unit began operation in approximately 1984.

**Date of Closure:**

This unit ceased operation in 1987 when the facility stopped its use of TCE.

**Wastes Managed:**

Waste TCE (F001) was used by the facility in two vapor degreasers for parts cleaning operations. One of the vapor degreasers was located at the present location of the Waste Oil for Reclamation Storage Tank (SWMU 8), located in Plant 2 near the Wastewater Evaporation System (SWMU 9). The other vapor degreaser was located near the Dirty Oil SAA (SWMU 1) located in the Plant 1 Heat Treating Department (Department No. 46). The waste was collected in 55-gallon drums that were stored at SWMU 4 and SWMU 11. The distillation process generated waste TCE still bottoms (F001), which were then stored at SWMUs 4 and 11 before being taken off site. The waste TCE still bottoms were taken off site to either Ulrich Chemical Inc. in Evansville, Indiana (EPA Identification No. IND 044 198 034) or Chemical Waste Management in Emelle, Alabama (EPA Identification No. ALD 000 622 464).

**Release Controls:**

This unit was located in an out-building located at Plant 2. The building has walls, a roof, concrete floors and no floor drains. No cracks were observed in the floor during the VSI.

History of  
Documented Releases:

There have been no documented releases from this unit.

Observations:

No evidence of the former still remains in this area. No evidence of a release was observed (see Photograph No. 19).

### **SWMU 13**

### **Special Waste Collection Dumpster**

Unit Description:

This 20-cubic yard dumpster, located in a three-sided, roofed, building south of Plant 2, is used by the facility to collect metal grit generated at both Plants 1 and 2. The metal grit is collected in Metal Grit SAAs (SWMU 3) located throughout Plants 1 and 2 and at the Hanchett Pit Waste Coolant Treatment System (SWMU 10). As the various containers and hoppers used to collect the grit are filled, they are taken to the Special Waste Collection Dumpster (SWMU 13) for storage before being taken off site for disposal by Sanitation Service, Inc. to their landfill in Effingham, Illinois.

Date of Startup:

This dumpster has been in use since 1990.

Date of Closure:

This unit is currently active.

Wastes Managed:

The metal grit is considered a special waste by IEPA. It consists of grinding grit (Special Waste Permit No. 841549), Hanchett pit grit (Special Waste Permit No. 850126), and sandblast grit (Special Waste Permit No. 841548). These metal grits are generated by various machining and polishing operations at both Plant 1 and 2. The waste is stored here before being taken off site for disposal by Sanitation to their landfill in Effingham, Illinois.

Release Controls:

The dumpster is stored in a three sided, 22- by 40-foot building with a roof. The building has a concrete floor and the front of the building opens into an asphalt paved area. No cracks were observed in the floor or surrounding asphalt. The open side of the building is not bermed.

History of  
Documented Releases:

There have been no documented releases from this unit.

Observations:

The dumpster was in use and about one-half full during the VSI. No wastes other than the special wastes appeared to be in the dumpster. Metal grit sludge could be seen on the floor of the building during the VSI (see Photograph No. 20).

#### **SWMU 14**

#### **Plant 3 Waste Accumulation Areas**

Unit Description:

The Airtex Plant 3 generates four different wastes. The first is a nonhazardous resin dust generated from resin used to insulate various electrical parts. The resin is applied to the parts and the parts are heated to fix the resin. Waste resin from the parts is generated during the fixing process and is gathered in a baghouse that empties into a 5-gallon pail. The pail is emptied into 55-gallon drums for accumulation. Five separate drums of waste resin were observed at Plant 3 during the VSI. The second waste is a nonhazardous waste lapping compound generated in manufacturing processes. The waste material is collected in 55-gallon drums. Three drums of the waste lapping compound were observed during the VSI. Nonhazardous waste lapping compound mixed with water is also periodically generated. This waste is taken to the Wastewater Evaporation System (SWMU 9) for treatment. Plant 3 also generates nonhazardous waste oil (mineral spirits) during production activities. One 55-gallon drum of waste oil was observed at Plant 3 during the VSI. Facility representatives stated that the drum would be taken to Plant 1 or 2 to be emptied into one of the Waste Oil for Reclamation Storage Tanks (SWMU 8).

Date of Startup:

The use of the waste resin and waste oil storage areas began in 1989 when Airtex began leasing Plant 3. Waste lapping compound and waste lapping compound mixed with water was first generated in 1991.

Date of Closure:

This unit is active.

Wastes Managed:	Waste resin, waste lapping compound, waste lapping compound mixed with water, and waste oil are generated at Plant 3 from the manufacture and assembly of various electronic parts. Waste resin and waste lapping compound are disposed of off site by Sanitation in the Effingham Landfill under Special Waste Permit Nos. 891236 (waste resin) and 890478 (waste lapping compound). Waste lapping compound mixed with water is taken to (SWMU 9) for treatment. Waste oil is taken to SWMU 8 for storage.
Release Controls:	The drums are stored inside the building on a concrete floor. No cracks were observed in the concrete. This building does not have any floor drains.
History of Documented Releases:	There have been no documented releases from this unit.
Observations:	All of the drums of waste material were stored closed during the VSI. Some waste lapping compound was spilled on the floor surrounding the waste lapping compound drums. No evidence of a release was observed in the other storage areas (see Photograph Nos. 21 through 23).

#### **4.0 AREAS OF CONCERN**

PRC identified two AOCs during the PA/VSI. These AOCs are discussed below; their locations are shown on Figure 2.

##### **AOC 1      Former Fuel Oil Underground Storage Tank Area**

Installed in 1977 and removed in June 1992, two 20,000-gallon steel underground unlined tanks were used to store fuel oil to supply boilers at Plant 1. They were formerly located beneath a dock area on the north side of Plant 1. When the tanks were removed, staining was observed near the fill pipes on both tanks. No other leaks or staining was observed. The facility conducted subsurface soil sampling during the removal activities and found PAH levels up to 300 micrograms per kilogram. After the removal action was complete, Airtex covered the area with a new dock. The facility is currently conducting additional sampling activities to determine the extent of the contamination. These activities are being coordinated with IEPA. IEPA has determined that no further excavation to remove contaminated subsurface soil from this area is necessary. This is because of the potential for damage to the facility building should additional excavation be conducted (IEPA, 1993).

##### **AOC 2      Former Plating Wastewater Discharge Area**

An area about three blocks east of Plant 1 at the intersection of Court and Union Streets was the discharge point for untreated plating wastewater from the facility prior to 1972. This wastewater may have contained chromium, zinc, and cyanide. No sampling in this area has been conducted.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/VSI identified 14 SWMUs and two AOCs at the Airtex facility. Background information on the facility's location; operations; waste generating processes and waste management practices; history of documented releases; regulatory history; environmental setting; and receptors is presented in Section 2.0. SWMU-specific information, such as the unit's description, dates of operation, wastes managed, release controls, history of documented releases, and observed condition, is presented in Section 3.0. AOCs are discussed in Section 4.0. Following are PRC's conclusions and recommendations for each SWMU and AOC. Table 3, at the end of this section, summarizes the SWMUs and AOCs at the facility and the recommended further actions.

### **SWMU 1                      Dirty Oil SAAs**

**Conclusions:**                      These units are used to collect waste oil and waste oil and water mixtures generated by various quenching, machining, and cleaning operations throughout the facility. SAA collection pans are also used to collect waste oil leaking from manufacturing equipment. Several of the collection pans were noted during the VSI to be poorly maintained, resulting in spills to the surrounding concrete floor. The potential for a release to ground water surface water, air, and on-site soils is low, however, because all of these units are located inside the facility buildings on concrete floors with no cracks.

**Recommendations:**              PRC recommends that the facility implement better waste oil containment systems on manufacturing equipment to prevent spills of waste oil to the facility floors.

### **SWMU 2                      Former Outdoor Waste Oil Storage Area**

**Conclusions:**                      The use of this SWMU for the storage of drums of waste oil ceased in 1990. No evidence of release was observed in this area. The potential for a release to ground water, surface water, air, and on-site soils is low.

**Recommendations:**              No further action is recommended at this time.



**SWMU 3****Metal Grit SAAs**

**Conclusions:** These SAAs are used to accumulate metal grit generated by various manufacturing equipment throughout the facility. Spills of metal grit were observed near several of the collection containers. The potential for a release of hazardous constituents via ground water, surface water, air, and on-site soils is low, however, because of the nonhazardous nature of this waste and because all Metal Grit SAAs are located inside the facility buildings. No cracks in the concrete floors were observed near any of these units.

**Recommendations:** PRC recommends that the facility implement better metal grit collection procedures to prevent releases to the facility floors.

**SWMU 4****Former Plant 2 RCRA Container Storage Area**

**Conclusions:** This SWMU is currently used to store plating wastewater pretreatment sludge (F006) in 55-gallon drums. Corrosion of the concrete underneath the drums was observed during the VSI. This observation indicates a possible reduction in the effectiveness of the concrete floor as a means of containment for this SWMU, however, the potential for release via ground water, surface water, air, and on-site soils is low because no drum leaks were observed and no evidence of any spills of hazardous waste.

**Recommendations:** PRC recommends the facility repair the concrete floor to ensure that any spills will be adequately contained.

**SWMU 5****Plant 1 Cast Iron Boring Hopper Storage Area**

**Conclusions:** This unit is used to collect cast iron borings covered with waste oil. The waste oil is allowed to drain to the bottom of the hoppers. No waste oil was observed leaking from the hoppers, and the floor in this area appeared to be free of any cracks. The potential for a release via ground water, surface water, air, and on-site soils is low.

**Recommendations:** No further action is recommended at this time.

**SWMU 6****Plating Wastewater Pretreatment System**

**Conclusions:** This system is used to pretreat plating wastewater before discharging the treated plating wastewater (nonhazardous) to the Fairfield municipal sewer. The system appeared to be operating properly during the VSI, and no cracks in any of the system's tanks or concrete floor were observed. The potential for a release via ground water, surface water, air, and on-site soils is low.

**Recommendations:** No further action is recommended at this time.

**SWMU 7****Former Waste Oil Underground Storage Tanks**

**Conclusions:** The tank at Plant 2 was removed in 1984 and at Plant 1 in August 1988. A review of the removal logs did not indicate any visual evidence of a release from the tanks. The potential for a release via ground water, surface water, air, and on-site soils is low.

**Recommendations:** No further action is recommended at this time.

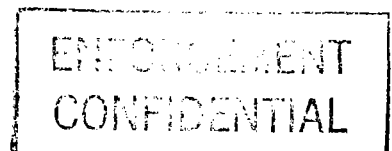
**SWMU 8****Waste Oil for Reclamation Storage Tanks**

**Conclusions:** These tanks are used to store waste oil. The tanks are located indoors on concrete floors. No spills or cracks in the tanks or concrete floors were observed during the VSI. The potential for a release via ground water, surface water, air, and on-site soils is low.

**Recommendations:** No further action is recommended at this time.

**SWMU 9****Wastewater Evaporation System**

**Conclusions:** This unit is used to evaporate wastewater from various waste oil and water mixtures generated throughout the facility. No evidence of any release from the evaporator or supply tanks was observed during the VSI. The concrete floors in this area appeared to be free of any cracks. There have been no recorded complaints or violations regarding air emissions at the facility. The potential for a release via ground water, surface water, air, and on-site soils is low.



Recommendations: No further action is recommended at this time.

**SWMU 10                      Hanchett Pit Waste Coolant Treatment System**

Conclusions: This unit is used to remove metal grit from waste surface grinding coolant. This waste is nonhazardous. No cracks in the concrete containment sump or grit collection area were observed. The bottom of the sump could not be observed because of coolant in the sump. The potential for release of hazardous constituents via ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends that the facility inspect the bottom of the concrete sump to determine the integrity of the system.

**SWMU 11                      Former Plant 2 RCRA Container Storage Area**

Conclusions: This unit is used to store cast iron borings and collect a waste oil and water mixture (nonhazardous). This unit reportedly was used to store hazardous wastes from 1984 until 1987. This unit has never undergone RCRA closure. The building currently has adequate secondary containment to collect the waste oil and water mixture. The area is surrounded by asphalt pavement. No cracks in the concrete were observed; however, the bottom of the concrete sump used to collect the waste oil and water mixture could not be observed during the VSI because of material in the sump. The potential for a release via ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends that the facility inspect the concrete sump to ensure its integrity and complete RCRA-closure activities.

**SWMU 12                      Former Waste TCE Distillation Unit**

Conclusions: This unit ceased operation in 1987 and no evidence of the unit remains at the facility. The unit was located inside a building on a concrete floor. No evidence of a release of hazardous constituents was observed in its former location. The potential for a release via ground water, surface water, air, and on-site soils is low.

Recommendations: No further action is recommended at this time.

**SWMU 13                      Special Waste Collection Dumpster**

Conclusions: This unit is used to collect nonhazardous metal grit from throughout the facility. The metal grit is stored in a steel 20-cubic-yard roll-off container inside of a concrete-floored, three-sided building. The building is surrounded by asphalt pavement, however, metal grit sludge was observed on the concrete floor surrounding the roll-off. The potential for a release via ground water, surface water, air, and on-site soils is low.

Recommendations: The facility should implement better waste handling practices to prevent spills of the waste material and install a berm between the concrete floor and asphalt paving to contain any spills inside the building.

**SWMU 14                      Plant 3 Waste Accumulation Areas**

Conclusions: These storage areas are used to collect nonhazardous waste resin, waste lapping compound, waste lapping compound mixed with water, and waste oil. Some spilled waste lapping compound was observed on the floor surrounding two of the collection drums; however, all of the collection drums associated with this unit are located within the Plant 3 building. No cracks in the concrete floor were observed. The potential for a release via ground water, surface water, air, and on-site soils is low.

Recommendations: PRC recommends the facility implement better waste handling practices to prevent a spill of waste lapping compound onto the floor.

**AOC 1                          Former Fuel Oil Underground Storage Tank Area**

Conclusions: Samples indicate subsurface soil levels of PAHs as high as 300 micrograms per kilogram in the former location of the tanks. The facility is conducting further investigations at this time to determine the extent of contamination. The potential for a release via environmental media is summarized below.

Ground Water: Moderate. Although no source for further contamination exists, subsurface soil sampling has indicated contamination from past releases. Ground water at the facility has not been identified. Regional ground water information indicates that ground water may be found in the glacial drift, 25 to 50 feet beneath the facility.

Surface Water: Low. These tanks were located underground and have been removed. The only possibility for surface water contamination would be in the event of ground-water discharge to a surrounding surface water body. This type of connection has not been documented in the area.

Air: Low. These tanks were located underground and have been removed. The low levels of contamination found make the possibility for air emissions from contaminated soil gas unlikely.

On-Site Soils: Based on previous sample results a release to soil has already occurred. These tanks were located underground and have been removed. The area is currently covered by a new dock area. Further investigation being conducted to determine nature and extent of contamination.

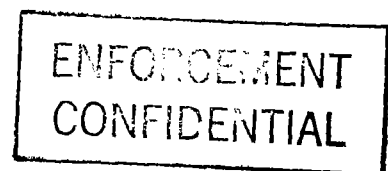
Recommendations: The facility should continue the subsurface soil contamination investigation, and should implement further corrective actions as necessary. This may include ground-water sampling or treatment of the contaminated area.

## **AOC 2**

### **Former Plating Wastewater Discharge Area**

Plating wastewater potentially containing chromium, zinc, and cyanide was discharged in this area untreated prior to 1972. The potential for a release via environmental pathways is summarized below.

Ground water: Low to Moderate. Residual soil contamination in this area may be a continuing source of ground-water contamination if it exists. No active ground-water wells have been identified within 3 miles of the facility.

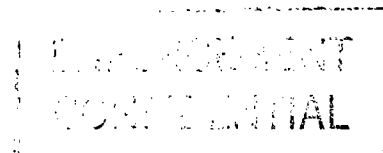


Surface Water: Low to Moderate: Residual contamination in this area may be a continuing source of surface water contamination if it exists. Johnson Creek is used for recreational purposes.

Air: Low. The wastes discharged to this area were not volatile. Waste disposal in this area ceased more than 20 years ago.

On-site Soils: Low. Untreated plating wastewater was discharged off-site and has little potential of affecting on-site soils.

Recommendation: The facility should conduct preliminary soil sampling for metals and cyanide in this area to determine if a release has occurred.



**TABLE 3**  
**SWMU AND AOC SUMMARY**

<u>SWMU</u>	<u>Dates of Operation</u>	<u>Evidence of Release</u>	<u>Recommended Further Action</u>
1. Dirty Oil SAAs	Before 1982 to present	Oil on floor throughout facility	Cleanup floors and institute better secondary containment systems on machinery
2. Former Outdoor Waste Oil Storage Area	Unknown to 1990	None	None
3. Metal Grit SAAs	1935 to present	Metal grit on floors near collection containers	Cleanup floors and institute better secondary containment systems on machinery
4. Former Plant 1 RCRA Container Storage Area	Before 1980 to present; RCRA-closed in January 1986	Corrosion evident on concrete floor	Repair floor to ensure adequate secondary containment
5. Plant 1 Cast Iron Boring Hopper Storage Area	1990 to present	None	None
6. Plating Wastewater Pretreatment System	1983 to present	None	None
7. Former Waste Oil Underground Storage Tanks	About 1971 to 1984 (Plant 2) and August 1988 (Plant 1)	None	None
8. Waste Oil for Reclamation Storage Tanks	1990 to present	None	None
9. Wastewater Evaporation System	1990 to present	None	None
10. Hanchett Pit Wastewater Treatment System	1967 to present	None	The facility should inspect concrete sump to ensure integrity
11. Former Plant 2 RCRA Container Storage Area	Unknown to present; hazardous waste storage from 1984 to 1987	None	The facility should inspect concrete sump to ensure integrity; complete RCRA-closure activities
12. Former Waste TCE Distillation Unit	1984 to 1987	None	None
13. Special Waste Collection Dumpster	1990 to present	Metal grit on building floor	Cleanup spills; institute better waste handling procedures; install concrete berm
14. Plant 3 Waste Accumulation Areas	1989 to present	Waste lapping compound spilled on floor	Cleanup spills and institute better waste handling procedures

**TABLE 3**  
**SWMU AND AOC SUMMARY**

<u>AOC</u>	<u>Dates of Operation</u>	<u>Evidence of Release</u>	<u>Recommended Further Action</u>
1. Former Fuel Oil Underground Storage Tank Area	1977 to June 1992	Staining around fill-pipe during removal and subsurface soil samples indicating contamination with various PAHs	Continue subsurface soil contamination investigation and implement additional sampling and corrective action as necessary as determined by IEPA
2. Former Plating Wastewater Discharge Area	Unknown	Discharge of untreated plating wastewater containing chromium, zinc, and cyanide	Soil sampling for metals and cyanide to determine if contamination exists



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**ATTACHMENT A**  
**EPA PRELIMINARY ASSESSMENT FORM 2070-12**



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE  
IL D

02 SITE NUMBER  
001 662 816

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Airtex Products Division United Industrial Syndicate	02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER 407 West Main Street				
03 CITY Fairfield	04 STATE IL	05 ZIP CODE 62837	06 COUNTY Wayne	07 COUNTY CODE	08 CONG DIST
09 COORDINATES: LATITUDE 38° 22' 56" N		LONGITUDE 88° 21' 54" W			
10 DIRECTIONS TO SITE (Starting from nearest public road) Follow Highway 14 east into Fairfield. Turn left at Fourth Street and left again at West Main Street. Facility is located immediately on the right.					

III. RESPONSIBLE PARTIES

01 OWNER (If known) United Industrial Syndicate Inc.	02 STREET (Business, mailing, residential) 600 5th Avenue				
03 CITY New York	04 STATE NY	05 ZIP CODE 10020	06 TELEPHONE NUMBER 212-581-7660		
07 OPERATOR (If known and different from owner) Airtex Products Division	08 STREET (Business, mailing, residential) 407 West Main Street				
09 CITY Fairfield	10 STATE IL	11 ZIP CODE 62837	12 TELEPHONE NUMBER 618-842-2111		
13 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ (Agency Name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER _____ (Specify) <input type="checkbox"/> G. UNKNOWN					
14. OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) <input checked="" type="checkbox"/> A. RCRA 3010 DATE RECEIVED: <u>7/21/80</u> <input type="checkbox"/> B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ____/____/____ <input type="checkbox"/> C. NONE MONTH DAY YEAR    MONTH DAY YEAR					

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION <input checked="" type="checkbox"/> YES    DATE <u>01/12/93</u> <input type="checkbox"/> NO		BY (Check all that apply) <input type="checkbox"/> A. EPA <input checked="" type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify) CONTRACTOR NAME(S): <u>PRC Environmental Management, Inc.</u>	
02 SITE STATUS (Check one) <input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		03 YEARS OF OPERATION <u>1935</u>   <u>present</u> BEGINNING YEAR ENDING YEAR <input type="checkbox"/> UNKNOWN	

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Chromium, zinc, cyanide, trichloroethylene, mineral spirits, waste oils, fuel oil

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Polyaromatic hydrocarbons found in subsurface soils at Plant 1 due to overfilling of fuel oil underground storage tanks.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents.)

☒ A. HIGH (Inspection required promptly)    ☐ B. MEDIUM (Inspection required)    ☐ C. LOW (Inspect on time-available basis)    ☐ D. NONE (No further action needed; complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT Kevin Pierard	02 OF (Agency/Organization) U.S. EPA		03 TELEPHONE NUMBER (312) 886-4448		
04 PERSON RESPONSIBLE FOR ASSESSMENT Tim Oliver	05 AGENCY	06 ORGANIZATION PRC	07 TELEPHONE NUMBER (615) 256-1191	08 DATE <u>01/22/93</u> MONTH DAY YEAR	

**ATTACHMENT B**  
**VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS**

## **VISUAL SITE INSPECTION SUMMARY**

**Airtex Products Division  
United Industrial Syndicate  
Fairfield, Illinois 62837  
ILD 001 662 816**

**Date:** January 12, 1993

**Primary Facility Representative:** Wayne M. Borah, General Plant Superintendent  
**Representative Telephone No.:** (618) 842-2111  
**Additional Facility Representatives:** Dennis Brant, Director of Manufacturing

**Inspection Team:** Tim Oliver, PRC Environmental Management, Inc. (PRC)  
Seshu Kulkarni, PRC

**Photographer:** Tim Oliver, PRC

**Weather Conditions:** Foggy with no wind, approximately 35° F

**Summary of Activities:** The visual site inspection (VSI) began at 8:15 a.m. with an introductory meeting. The inspection team explained the purpose of the VSI and the agenda for the visit. Facility representatives provided the inspection team with a map of the facility, and began a walk-through inspection of Plant 1 at 8:27 a.m. At the completion of the Plant 1 tour, PRC and the facility representatives returned to a conference room to discuss the facility's past and current operations, solid wastes generated, and release history.

At 10:20 a.m., the group moved to Plant 2 for a walk-through inspection, and then to Plant 3 at 11:40 a.m. At the completion of the Plant 3 tour, the group returned to Plant 1 for an exit meeting with facility representatives. The inspection team left the facility at 12:10 p.m.



Photograph No. 1  
 Orientation: West  
 Description: Dirty Oil SAA and mineral spirits parts washer located in the Plant 1 Maintenance Department.

Location: SWMU 1  
 Date: 01/12/93



Photograph No. 2  
 Orientation: South  
 Description: Oil spilled on the floor in Department No. 44, Plant 1, near one of the Dirty Oil SAA collection pans.

Location: SWMU 1  
 Date: 01/12/93





Photograph No. 3  
 Orientation: West  
 Description: Dirty Oil SAA located in Plant 1 Department No. 46.

Location: SWMU 1  
 Date: 01/12/93



Photograph No. 4  
 Orientation: Southeast  
 Description: Dirty Oil SAA located in Department No. 42.

Location: SWMU 1  
 Date: 01/12/93



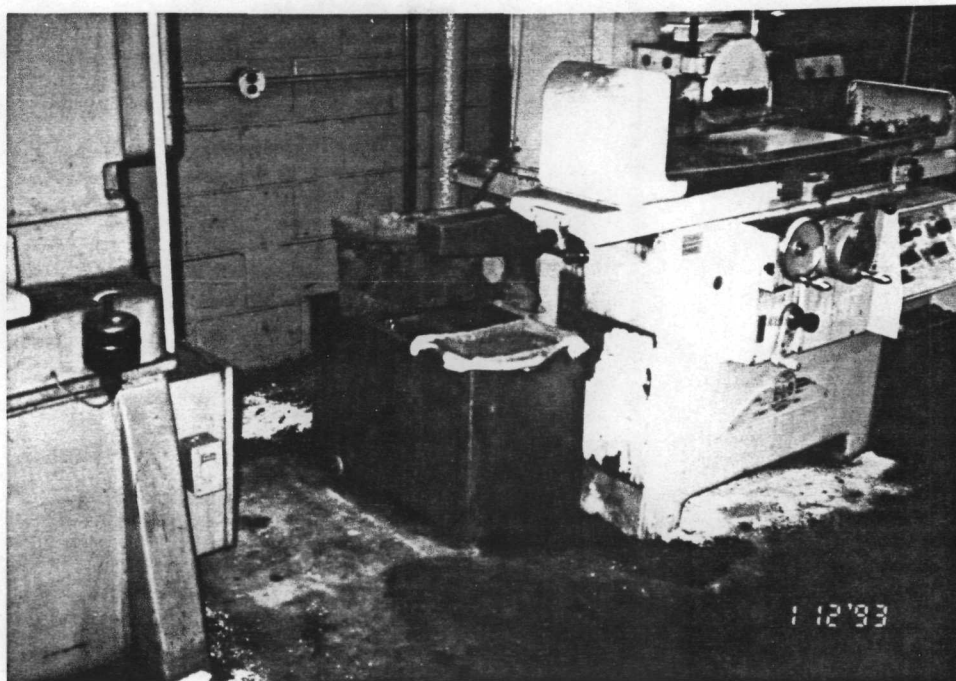
Photograph No. 5  
 Orientation: West  
 Description: Dirty Oil SAA located at Plant 2.

Location: SWMU 1  
 Date: 01/12/93



Photograph No. 6  
 Orientation: Southwest  
 Description: Former Outdoor Waste Oil Storage Area located south of Department No. 44.

Location: SWMU 2  
 Date: 01/12/93



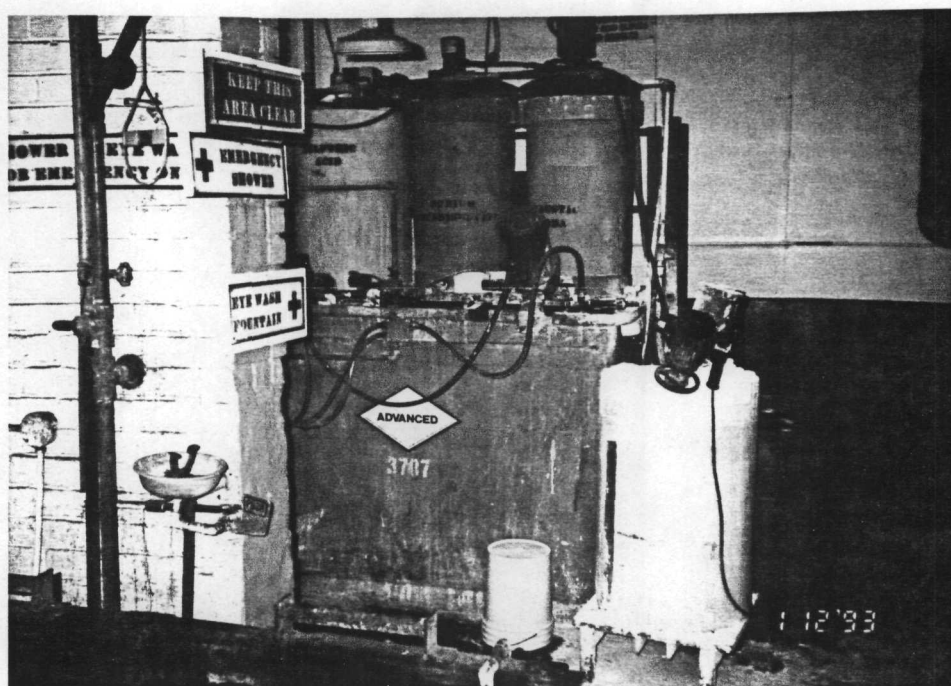
Photograph No. 7  
 Orientation: Southeast  
 Description: Metal Grit SAA box located in the Tool Room in Plant 1.

Location: SWMU 3  
 Date: 01/12/93



Photograph No. 8  
 Orientation: North  
 Description: Former Plant 1 RCRA Container Storage Area located in Department No. 44.

Location: SWMU 4  
 Date: 01/12/93



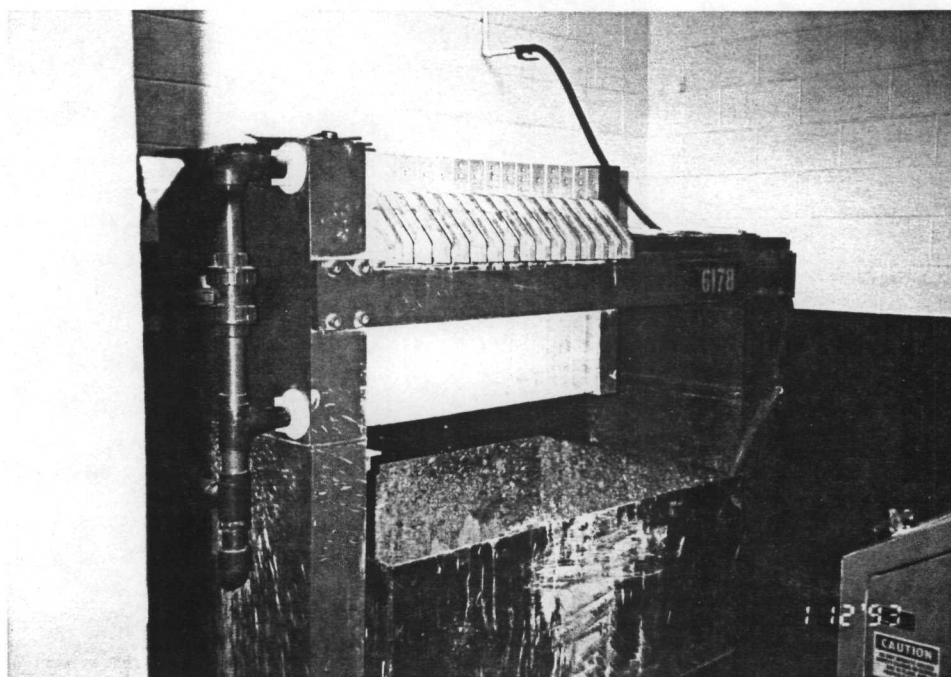
Photograph No. 9

Orientation: East Northeast

Location: SWMU 6

Date: 01/12/93

Description: Treatment tanks located at the wastewater treatment system at Plant 1 for the addition of sulfuric acid, sodium metabisulfite, and sodium hydroxide.



Photograph No. 10

Orientation: Southeast

Location: SWMU 6

Date: 01/12/93

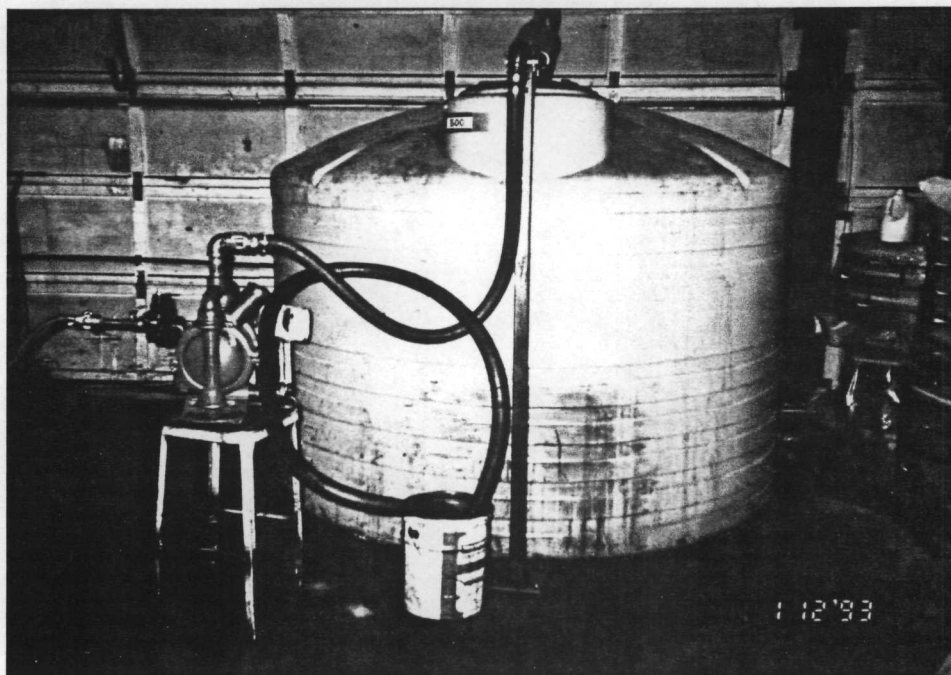
Description: Filter press section of wastewater treatment system at Plant 1.





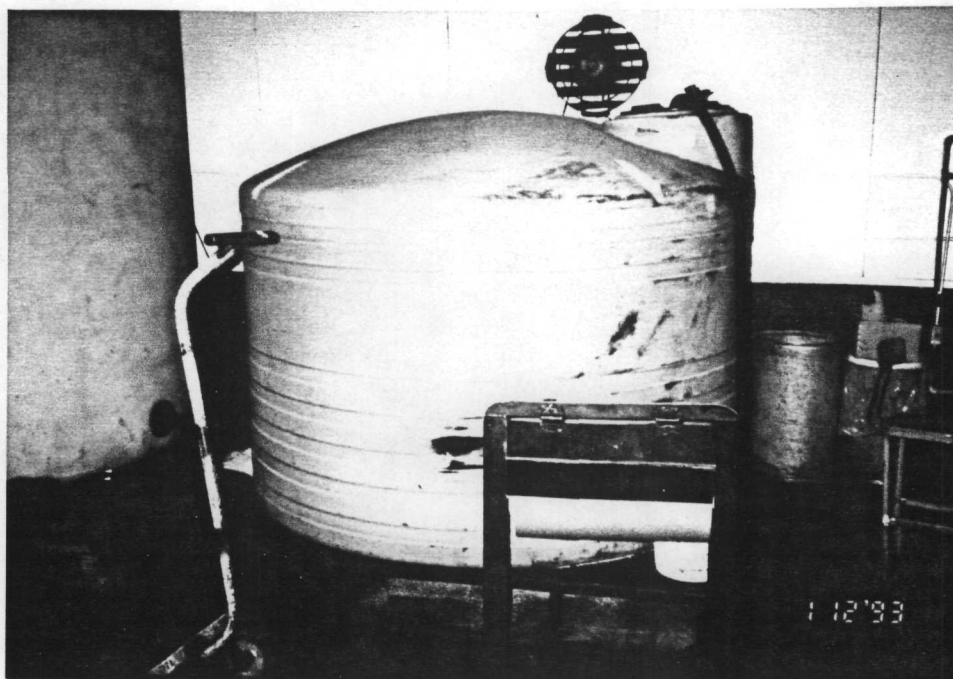
Photograph No. 11  
 Orientation: North Northeast  
 Description: Former location of fuel oil UST at Plant 2 removed in 1984.

Location: SWMU 7  
 Date: 01/12/93



Photograph No. 12  
 Orientation: East  
 Description: Waste Oil for Reclamation Storage Tank located in Department No. 76 at Plant 1.

Location: SWMU 9  
 Date: 01/12/93



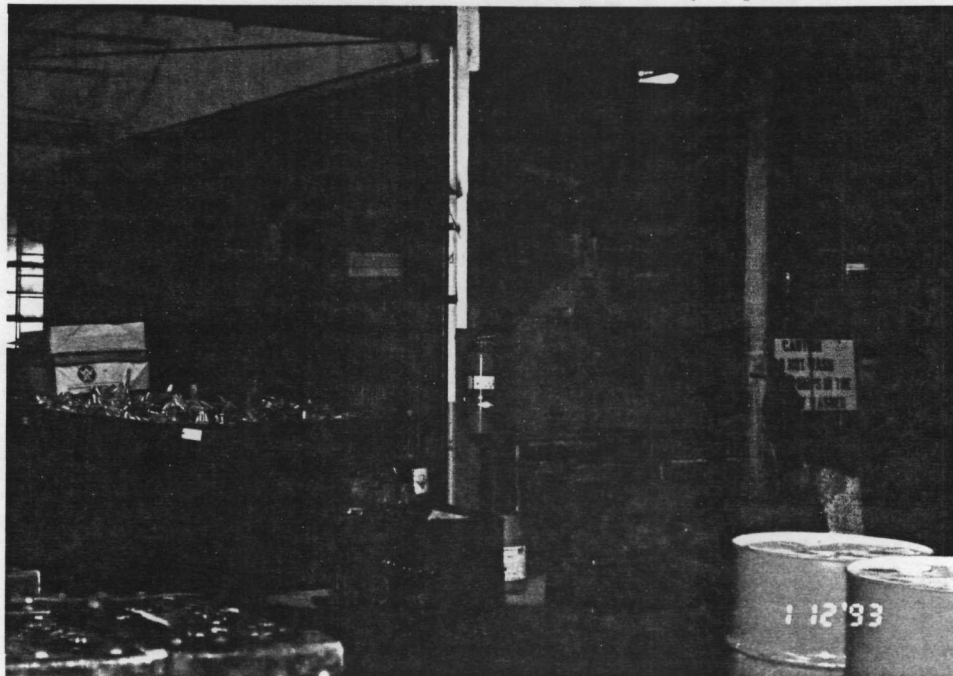
Photograph No. 13

Orientation: East

Location: SWMU 8

Date: 01/12/93

Description: Waste Oil for Reclamation Tank located in Plant 2, Department No. 89.



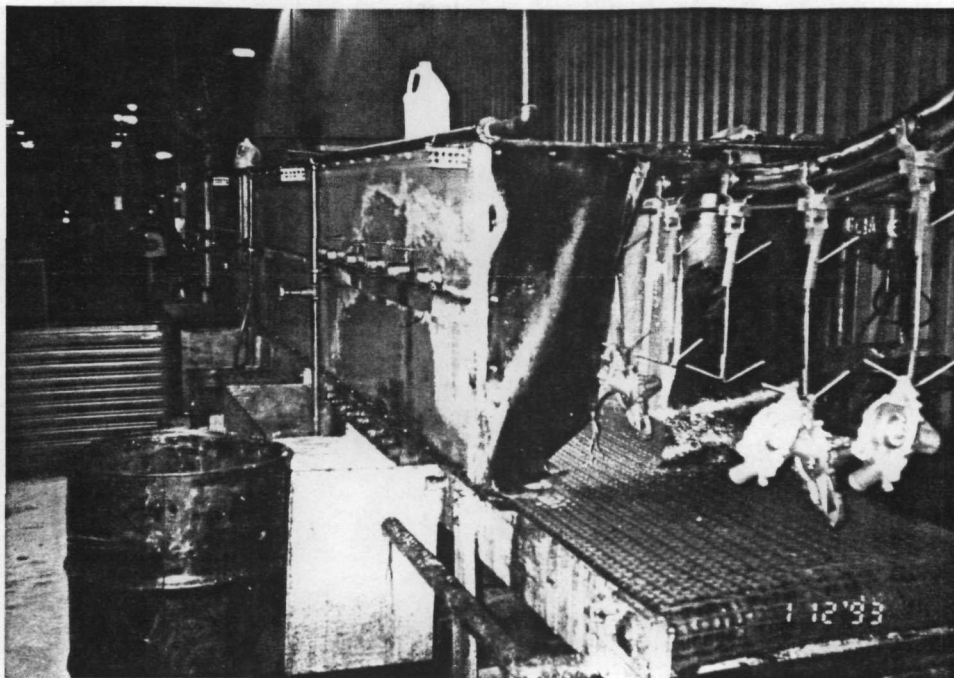
Photograph No. 14

Orientation: Southeast

Location: Department No. 54

Date: 01/12/93

Description: Ranshoff Washer and Udylyte washer, which use soap and water to wash various parts. The wastewater and oil mixture generated in the washers is taken to the Wastewater Evaporation System (SWMU 9) for treatment.



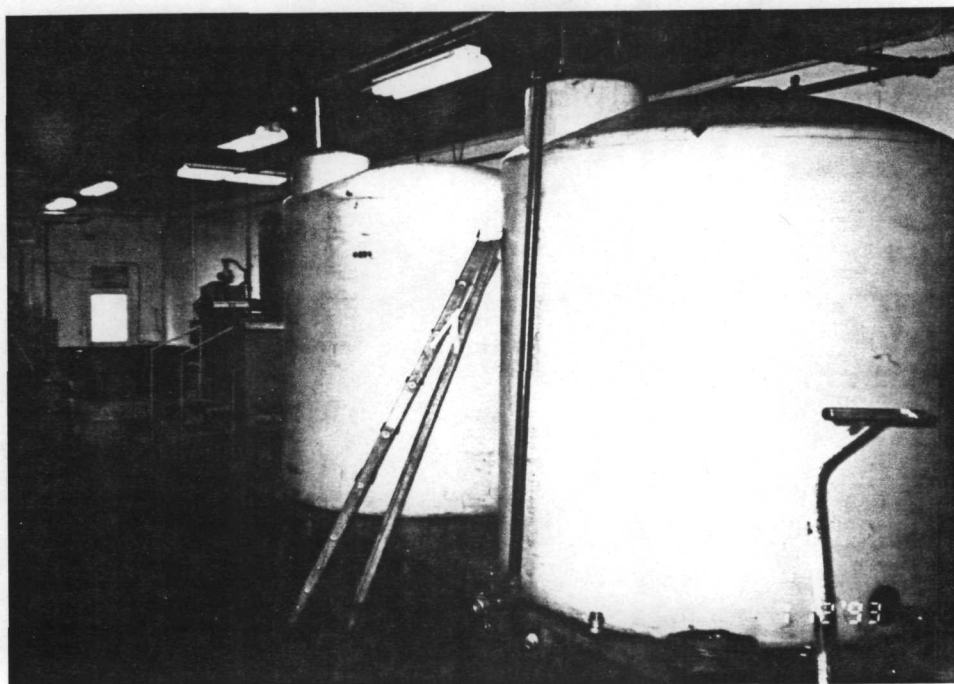
Photograph No. 15

Location: Department No. 54

Orientation: Northeast

Date: 01/12/93

Description: Parts washer in Plant 2, Department No. 54, which uses soap and water to remove oil from various parts. The wastewater and oil mixture generated in the washer is taken to the Wastewater Evaporation System (SWMU 9) for treatment.



Photograph No. 16

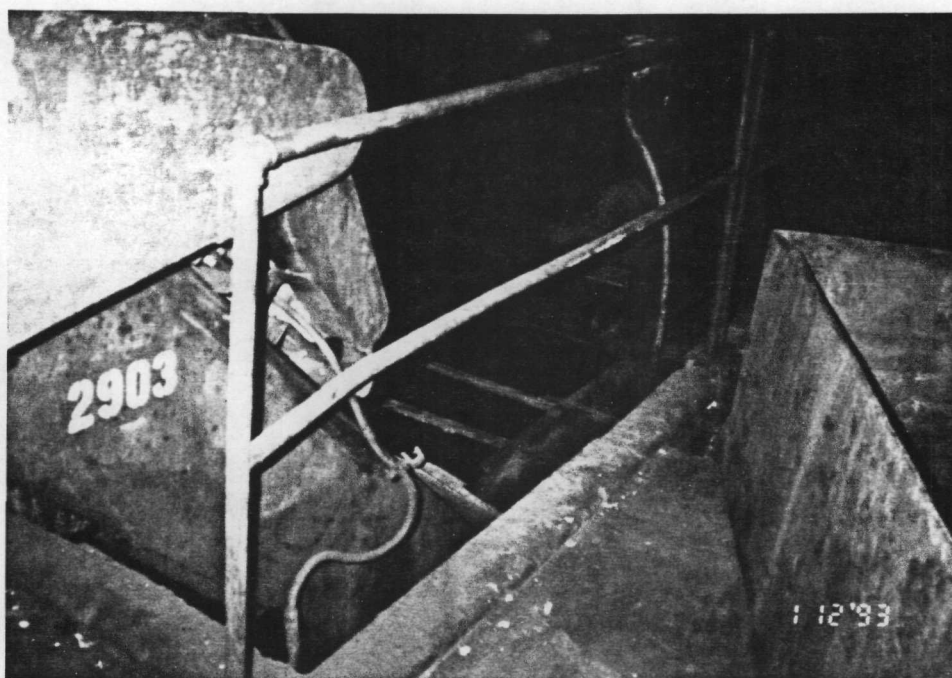
Location: SWMU 9

Orientation: Northeast

Date: 01/12/93

Description: Wastewater Evaporation System at Plant 2, Department No. 89.





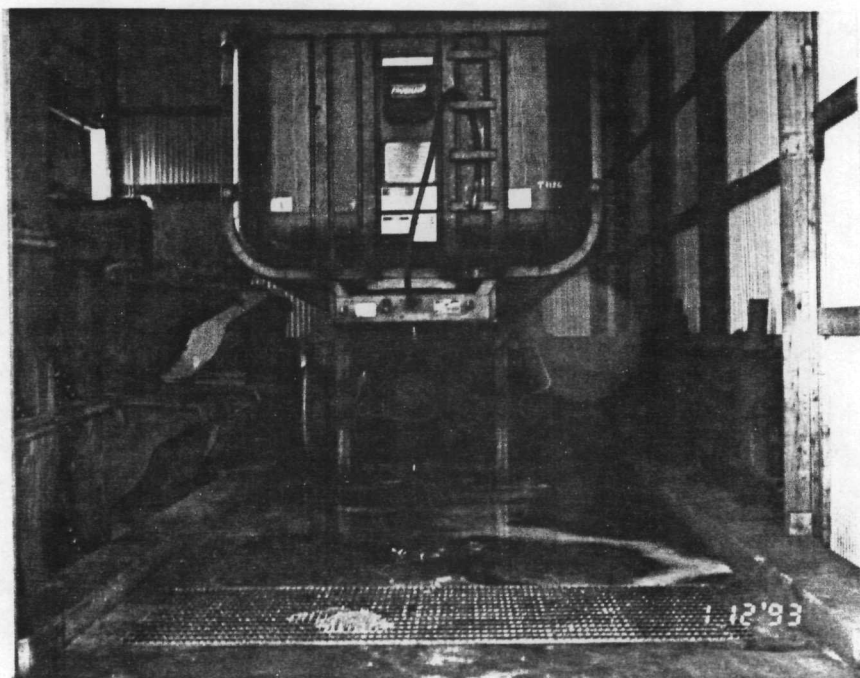
Photograph No. 17

Orientation: Northeast

Location: SWMU 10

Date: 01/12/93

Description: Hanchett Pit Wastewater Treatment System at Plant 2, which reclaims used surface grinding coolant wastewater by removing metal grit.



Photograph No. 18

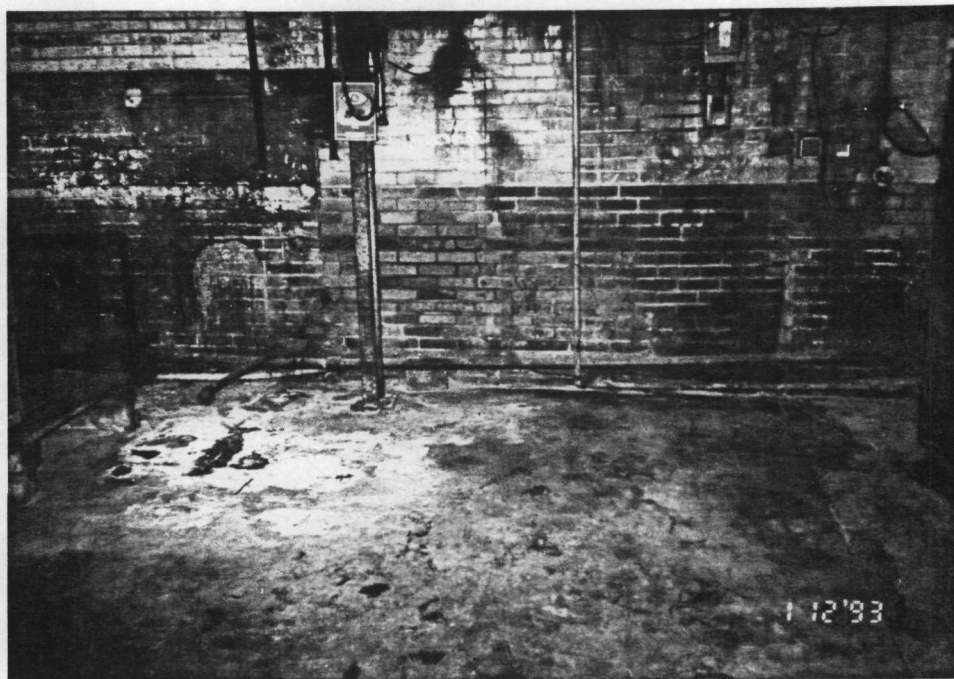
Orientation: North

Location: SWMU 11

Date: 01/12/93

Description: Cast iron boring truck trailer and waste oil collection pit at the Former Plant 2 RCRA Container Storage Area.





Photograph No. 19

Orientation: East

Description: Location of the Former Waste TCE Distillation Unit at Plant 2.

Location: SWMU 12

Date: 01/12/93



Photograph No. 20

Orientation: Southwest

Description: Special Waste Collection Dumpster, located south of Plant 2, used to collect various metal grits generated at the facility.

Location: SWMU 13

Date: 01/12/93



Photograph No. 21  
 Orientation: Southwest  
 Description: Waste lapping compound collection drums at Plant 3.

Location: SWMU 14  
 Date: 01/12/93



Photograph No. 22  
 Orientation: Northeast  
 Description: Waste resin collection drums at Plant 3.

Location: SWMU 14  
 Date: 01/12/93



Photograph No. 23  
Orientation: South  
Description: Waste lapping compound storage area at Plant 3.

Location: SWMU 14  
Date: 01/12/93

**ATTACHMENT C**  
**VISUAL SITE INSPECTION FIELD NOTES**

# CONTENTS

Field Logbook No. NV-0002 Location PAUSI

(Continued from previous page)

Project	Notes Taken		Last Page Used
No.	Date		
Name	Name		
No.	Date		
Name	Name		
No.	Date		
Name	Name		
No.	Date		
Name	Name		
No.	Date		
Name	Name		

Field Logbook No. NV-0002 Date 1/12/93  
 Project No. 00910508712174  
 Project Name Airtex Products PAUSI

0815	Onsite	Tim Oliver, PLC
	Seshu Kulkarni, PLC	
	Foggy 340F no wind.	
	Meet with Wayne Brant,	
	Dennis Brant of Airtex	
	to discuss purpose of	
	inspection.	
0827	Begin visit	
	into maintenance dept.	
	into tool room - 255-pd	
	draws of grench oil with	
	contained pallet used	
11/12	repeatedly until spent	
	and then taken to	
	oil for rec. storage	
	area photo 1-2 N	
	moving Dept. 44 to H20	
	Storage Area	

Field Logbook No. NV-0002 Date 1/12/93

Project No. \_\_\_\_\_  
Project Name \_\_\_\_\_

SWMU	Size	WASTE
1. Dirty oil SAA	55 gal (Nai. st.)	Dirty oil to O. 1 for Rec. Storage area
2. Grinding Saw f shks	5cc various (T=0)	grinding swarf from tooling
3. Mineral Spirits PD	35 gal (Foot)	140 MS 35 gal to ORSA
4. RCRA Combustible	121 x 20 (44)	WMS USA 60 drums FOO6 plating sludge
5. Cast Iron Boring Stone	Stone (44)	to recycle McDonough St. Louis
6. MS PWC	35 gal (44)	MS/water oil
7. HVB MS PWC	35 gal (44)	MS/water bats/containers

11/12/93

Field Logbook No. NV-0002 Date 1/12/93

Project No. \_\_\_\_\_  
Project Name \_\_\_\_\_

SPILLS	AGE	PHOTO
CC no C	Asst. to current (PWC 17 years)	1-1 W
CC no C	begin to current	1-3 SE
CC no C	begin to current	1-4 WSW
CC no C	1980 to current closed in	1-5 N
CC	1990 begin to current	1-6 N
CC	begin - cur	1-7 ESE
CC	> 25 yr - cur	1-8 NW
CC		1-9 "

1/12/93



Field Logbook No. NV-0002 Date 1/12/93

Project No.

Project Name

- Reps state that area was  
larger than currently  
fenced area.  
- Use drum to move MS  
from PW to SA  
- Oil is pervasive on  
Phos. Thru out the  
facility. 1-10-  
- to Dept. 46 that treat  
internal guench oil  
replaced 1/4 to 500 to  
1600 gal Ammonia  
pump underneath concrete  
pump periodically  
- boiler room does turn  
a drain to sewer  
- boring iron on SA  
Dept 42 Machine Shop

Field Logbook No. NV-0002 Date 1/12/93

Project No.

Project Name

- Dept 40 (see building)  
chucker-ops - sac  
machine has a parts  
washer (4)  
then automatic screw  
machines  
- into plating department  
caustic / zinc / dichrome  
area is drained to sump  
that feeds the treatment system  
- Dept. 45 grinding dept  
generate more grinding  
swarf in this area  
- water based coolant  
waste source for evaporator  
- To Dept. 46  
1/12/93





Field Logbook No. NV-0002 Date 1/12/93

Project No. \_\_\_\_\_

Project Name \_\_\_\_\_

0835 Buck in cond. rep.	
ALL WASTE OILS (waste names)	
AKO for awtp & security	
USTs	hours
Plant been here since 1935 - to current owner	
in 1958 Benjamin Franklin	
Air Permits + Assoc.	
<hr/>	
[sump] → [Retention tank] → [Waste treat system]	
20 gal/min (55 gal)	1500 gal
auto check for chrome	yes → H <sub>2</sub> O → NaMnO <sub>4</sub> → waste
	Retention → caprylic → pH 9.5

8 (3 tanks w/ 150 gal 200)

Field Logbook No. NV-0002 Date 1/12/93

Project No. \_\_\_\_\_

Project Name \_\_\_\_\_

[Benzofluor polymer] → w/ceramic		holding tank (400 gal)
clarifying tank (1,500 gal)	→ sludge filter press	water to sump
	→ 1100 to city	
sludge to dryer → 55 gal drum		water to sump
about 10 days.		
→ USTs	1 - used oil	
last removed date = 11/14/88	size = 3763	
→ USTs	found nothing	
1977 - 1992	2 - 20,000 gal fuel oil	tanks under dock
had some overflow	IEPA	
still looking at test results		
and additional sampling		
will be required for further excavation.		

Field Logbook No. NV-0002 Date 1/12/93

Project No. \_\_\_\_\_  
Project Name \_\_\_\_\_

8	Zinc	holes	deck
6	Zinc	holes	perimeter
	benzene	solvent	kylen/ethylene
•	Start	Thursday	morning
<hr/>			
24	hours	guards	P1-2
P3	has	no	detectors
work	2-8	hour	shifts at all
3	plants.	Hent	trent runs 3.
<hr/>			
	waste	cottling	oil
	used	hydraulic	oil
	mineral	spirits	
	grinding	oil	
	1st	Recovery	Terre Haute, IN
	#NFO	KJD 98	(807274)
	43,115	gallons	(1992)
<hr/>			
<i>[Signature]</i> 1/12/93			

Field Logbook No. NV-0002 Date 1/12/93

Project No. \_\_\_\_\_  
Project Name \_\_\_\_\_

	waste	planting	sloppy
	CWM	- Fort Wayne	
		IND 078911	1416
	plant 2	2056	gallons (1940)
			1-17
	1020	Move to plant 2	
	enter in	Apr. 48	
		Assembly	
	- Apr. 47	Feed pump	
		assembly	
	- 51	more	gsk.
	- Bracing	area	
	- Kelle...		
	- (77 is in	middle stock)	
	- in to die	cast area	
		metals - aluminum in	
		furnace area.	
<hr/>			
<i>[Signature]</i> 1/12/93			

Field Logbook No. NV-0002 Date 1/12/93

Project No. \_\_\_\_\_

Project Name \_\_\_\_\_

a/suone in 43.	1,500/600
15. Runso ft	1,500 sample water
Washer	to evap
Wly like	
<hr/>	
16. Waste oil	(2) out in 89
take for 12	1500 waste
	0.1 ft
<hr/>	
17. Evap	2 3,000 gal waste
system (W) tanks	waste
(25% to evap)	
<hr/>	
18. Surface	2,000 gal windings
binding coat	stop
was recharmer	
(Hanchett pt)	
<hr/>	
19. Ironing	4000
trailer	with 1
back collection	W. 800 gal - 1000

*[Signature]* 1/12/93

Field Logbook No. NV-0002 Date 1/12/93

Project No. \_\_\_\_\_

Project Name \_\_\_\_\_

1985	120 SE
R 1986 -	
current	
<hr/>	
also dephase location	
1991	
current	1-2/E
tank plastic	
CCC	
<hr/>	
plastic tank	
SCC	
(1990)	1-2 NE
current	
was shuttled	
<hr/>	
OK	
concrete	
1967	1-2 NE
current	
<hr/>	
concrete	
1990	1-2 N
current	
1/12/93	

*[Signature]*

Field Logbook No. NV-0002 Date: 1/12/93

Project No.

Project Name

- 43 marching
- 89 goal
- 01 building RCR at  
Storace ween on side
- dirty ICE stored for  
distillation generated  
here ( )
- in progress to be soon  
used to drain.

1129 Outside 5 of P2  
at Special ops in  
dumps (sawnt)

- 1140 At Plant 3. Resin  
just collected. 10:5 gel.
- piles to drain in back
- 1989 began using this day  
pre 1946 Airter P2

*[Signature]* 11/2/93

14

Field Logbook No. NV-0002 Date 1/12/93

**Project No.**

Project Name

gen MS be taken  
sp - P1 - P1 + 2  
1200 Buck at Plant 1  
to end too -  
St. 11 use one year # (although  
only P1 now). Probably  
not 390 day storage  
at P2, but not possible.  
~~St. 11 193~~  
~~11/12/193~~

15

Field Logbook No. NV-00023 Date 1/12/93

Project No. \_\_\_\_\_  
Project Name \_\_\_\_\_

20. Old still	( )	725
21. Freewaste dumper	2001	grub sump
22. Waste Resin 54A	553d	200-5
23. Waste to lepping bed dross	3 553d	

*[Signature]*  
1/12/93

Field Logbook No. NV-00023 Date 1/12/93

Project No. \_\_\_\_\_  
Project Name \_\_\_\_\_

112	1984-8	Photo 2-5
112	1990 Current	Photo 2-1
112	Current	Photo 2-3
112	1991- Current	Photo 2-2
112	1991- Current	2-4

*[Signature]*  
1/12/93

**ATTACHMENT D**  
**ANALYTICAL RESULTS**

omer ID: AP-015  
ed: 6/29/92

ASLI ID: CSE0020N

P.

---- Compound Search List ----  
\*\*\* EPA METHOD 8310 / HPLC PNA (PAH) \*\*\*

Compound		Amount	Units
HTHALENE	<	2.0	ug/Kg
NAPHTHENE	<	2.0	ug/Kg
NAPHTHYLENE	<	2.0	ug/Kg
HRACENE	<	2.0	ug/Kg
ZO(A)ANTHRACENE	=	80.0	ug/Kg
NZO(A)PYRENE	<	2.0	ug/Kg
NZO(B)FLUORANTHENE	<	2.0	ug/Kg
ZO(K)FLUORANTHENE	<	2.0	ug/Kg
NZO(GHI)PERYLENE	<	2.0	ug/Kg
RYSENE	=	130.0	ug/Kg
JORANTHENE	<	2.0	ug/Kg
JORENE	<	2.0	ug/Kg
IDENO(1,2,3-CD) PYRENE	<	2.0	ug/Kg
ENANTHRENE	<	2.0	ug/Kg
RENE	<	2.0	ug/Kg
IBENZO(A,H) ANTHRACENE	<	2.0	ug/Kg

rrrogate Recovery:

% Actual

% Limits

/MS DETECTION LIMIT IS 2.0 ug/Kg

DILUTION FACTOR IS

1.00

*12/10/92*

1D  
PESTICIDE ORGANIC ANALYSIS

Waste oil

Customer Sample No.

#2 HOLDING  
TANK #2 PLT 1

Lab Name: ARDL, Inc. Contract: AIRTEX  
Lab Code: \_\_\_\_\_ Case No.: 112186 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
Matrix (soil/water) : WASTE Lab Sample ID : 112186-2  
Sample wt/vol : 1.0 (g/mL) g Lab File ID :  
Level (low/med) : ---- Date Received : 07/11/91  
% Moisture (not dec): --- dec. - Date Extracted : 07/29/91  
Extraction (Sepf/Cont/Sonc): DILUTION Date Analyzed : 07/30/91  
GPC Cleanup ( Y/N ): N pH: 8.0 Dilution Factor: 1.0

CAS No. Compound Concentration Units: ug/Kg Q  
(ug/L or ug/Kg)

12674-11-2	Aroclor 1016	2400	U
11104-23-2	Aroclor 1221	2400	U
11141-16-5	Aroclor 1232	2400	U
53469-21-9	Aroclor 1242	2400	U
12672-29-6	Aroclor 1248	2400	U
11097-69-1	Aroclor 1254	2400	U
11096-82-5	Aroclor 1260	2400	U



1D  
PESTICIDE ORGANIC ANALYSIS

Waste uid

Customer Sample No.

#3 HOLDING  
TANK/P2

Lab Name: ARDL, Inc. Contract: AIRTEX  
Lab Code: \_\_\_\_\_ Case No.: 112186 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
Matrix (soil/water) : WASTE Lab Sample ID : 112186-3  
Sample wt/vol : 1.0 (g/mL) g Lab File ID :  
Level (low/med) : --- Date Received : 07/11/91  
% Moisture (not dec): --- dec. - Date Extracted : 07/29/91  
Extraction (Sepf/Cont/Sonc): DILUTION Date Analyzed : 07/30/91  
GPC Cleanup ( Y/N ): N pH: 7.0 Dilution Factor: 1.0

CAS No.	Compound	Concentration Units: ug/Kg	Q
(ug/L or ug/Kg)			

12674-11-2	Aroclor 1016	2400	U
11104-28-2	Aroclor 1221	2400	U
11141-16-5	Aroclor 1232	2400	U
53469-21-9	Aroclor 1242	2400	U
12672-29-6	Aroclor 1248	2400	U
11097-69-1	Aroclor 1254	2400	U
11096-82-5	Aroclor 1260	2400	U



# TEKLAB, INC.

#6 MEADOW HEIGHTS PROF. PARK  
COLLINSVILLE, ILLINOIS 62234

ENVIRONMENTAL & CHEMICAL TESTING

TELE: 618-344-1004  
FAX: 618-344-1005

January 8, 1993  
REPORT #34769

Mr. Mickey Borah  
Airtex Products  
407 West Main  
Fairfield, IL 62837

Project: Special Waste Testing

Sample received: 12-29-92

Sample ID	Impregnating Operation
Sample Date	Rinse Water
Sample Time	12-29-92
Lab ID	0800
	921229-10

## ANALYSIS RESULTS

<u>PARAMETER</u>	<u>RESULT</u>	<u>REGULATORY LEVEL</u>
Total Solids, %	0.04	----
pH	7.68	>2/<12.5
Phenols, mg/kg	<5	1000
Cyanide (Total), mg/kg	<1	----
Cyanide (Reactive), mg/kg	<1	<10
Sulfide (Total), mg/kg	<1	----
Sulfide (Reactive), mg/kg	<1	<10
Flash Point, °F	>200	>140
Paint Filter	FAIL	----
Total Organic Halides, mg/kg	0.224	1000

## TCLP EXTRACT

<u>CAS NO.</u>	<u>PARAMETER</u>	<u>RESULT</u>	<u>REGULATORY LEVEL</u>
7440-38-2	Arsenic, mg/l	<0.002	5.0
7440-39-3	Barium, mg/l	0.6	100
7440-43-9	Cadmium, mg/l	0.010	1.0
7440-47-3	Chromium, mg/l	<0.03	5.0
7439-92-1	Lead, mg/l	<0.05	5.0
7439-97-6	Mercury, mg/l	<0.0002	0.2
7782-49-2	Selenium, mg/l	<0.002	1.0
7440-22-4	Silver, mg/l	<0.01	5.0

These tests were conducted in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. Environmental Protection Agency, SW-846 (Revised 1990).

TEKLAB, INC.

  
Tony A. Lynn

Laboratory Director

# TEKLAB, INC.

ENVIRONMENTAL & CHEMICAL TESTING

#6 MEADOW HEIGHTS PROF. PARK  
COLLINSVILLE, ILLINOIS 62234

TELE: 618-344-1004  
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January 8, 1993

REPORT #34769S

Mr. Mickey Borah  
Airtex Products  
407 West Main  
Fairfield, IL 62837

Project: Special Waste Testing

Sample received: 12-29-92

Sample ID	Impregnating Operation
	Rinse Water
Sample Date	12-29-92
Sample Time	0800
Lab ID	921229-10

## TCLP VOLATILE ORGANIC COMPOUNDS METHOD SW-846 8240

<u>CAS #</u>	<u>PARAMETER</u>	<u>DETECTION LIMIT</u>	<u>RESULT</u>	<u>*REG. LEVEL</u>
75-01-4	Vinyl Chloride, mg/l	0.010	ND	0.200
75-35-4	1,1-Dichloroethylene, mg/l	0.010	ND	0.700
78-93-3	Methyl ethyl ketone, mg/l	0.010	ND	200
67-66-3	Chloroform, mg/l	0.005	ND	6.0
56-23-5	Carbon Tetrachloride, mg/l	0.005	ND	0.500
107-06-2	1,2-Dichloroethane, mg/l	0.005	ND	0.500
71-43-2	Benzene, mg/l	0.005	ND	0.500
79-01-6	Trichloroethylene, mg/l	0.005	ND	0.500
127-18-4	Tetrachloroethylene, mg/l	0.005	ND	0.700
108-90-7	Chlorobenzene, mg/l	0.005	ND	100
106-46-7	1,4-Dichlorobenzene, mg/l	0.005	ND	7.5

ND = Below detection limit

\* = USEPA regulatory limit

TEKLAB, INC.

  
Tony A. Lynn  
Laboratory Director

# TEKLAB, INC.

#6 MEADOW HEIGHTS PROF PARK  
COLLINSVILLE, ILLINOIS 62234

ENVIRONMENTAL & CHEMICAL TESTING

TELE: 618-344-1004  
FAX: 618-344-1005

January 8, 1993

REPORT #34769S

Mr. Mickey Borah  
Airtex Products  
407 West Main  
Fairfield, IL 62837

Project: Special Waste Testing

Sample received: 12-29-92

Sample ID	Impregnating Operation
	Rinse Water
Sample Date	12-29-92
Sample Time	0800
Lab ID	921229-10

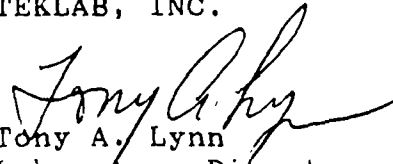
## TCLP SEMI-VOLATILE ORGANIC COMPOUNDS METHOD SW-846 8270

<u>CAS #</u>	<u>PARAMETER</u>	<u>DETECTION LIMIT</u>	<u>RESULT</u>	<u>*REG. LEVEL</u>
110-86-1	Pyridine, mg/l	4.0	ND	5.0
95-48-7	o-Cresol, mg/l	10.0	ND	200
106-44-5	m & p-Cresol, mg/l	10.0	ND	200
67-72-1	Hexachloroethane, mg/l	2.0	ND	3.0
98-95-3	Nitrobenzene, mg/l	1.5	ND	2.0
87-68-3	Hexachlorobutadiene, mg/l	0.40	ND	0.50
88-06-2	2,4,6-Trichlorophenol, mg/l	1.0	ND	2.0
95-95-4	2,4,5-Trichlorophenol, mg/l	20.0	ND	400
32-64-9	2,4-Dinitrotoluene, mg/l	0.10	ND	0.13
118-74-1	Hexachlorobenzene, mg/l	0.10	ND	0.13
87-86-5	Pentachlorophenol, mg/l	10.0	ND	100

ND = Below detection limit

\* = USEPA regulatory limit

TEKLAB, INC.

  
Tony A. Lynn  
Laboratory Director



Analytical Services Laboratory Inc.  
College Industrial Park, Bldg 4-420  
P.O. Box 14228  
Louisville, KY 40214

PHONE: (502) 635-1324 FAX: (502) 636-3192

Central States Environmental  
P. O. Box 684  
Rt. 6 Airport Road  
Centralia, IL 62801

ATT: PHIL RICHARDSON

Reference:

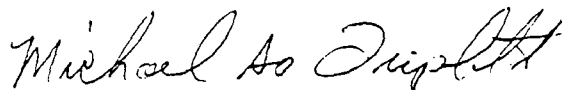
Project # : AIRTEX  
Location : ILLINOIS  
Samples Recv'd : Jun 24, 1992  
Qty of Samples : 14

Enclosed are the results of the tests requested. The samples were analyzed utilizing the appropriate EPA approved methods. Where EPA allows alternate methods, the Best Available Technology was used.

Prior to analysis all systems are tuned and calibrated with the appropriate standards. QA/QC results met the necessary EPA parameters before your testing began. All associated Quality Control information will be maintained at ASLI. A copy of this data can be forwarded upon request.

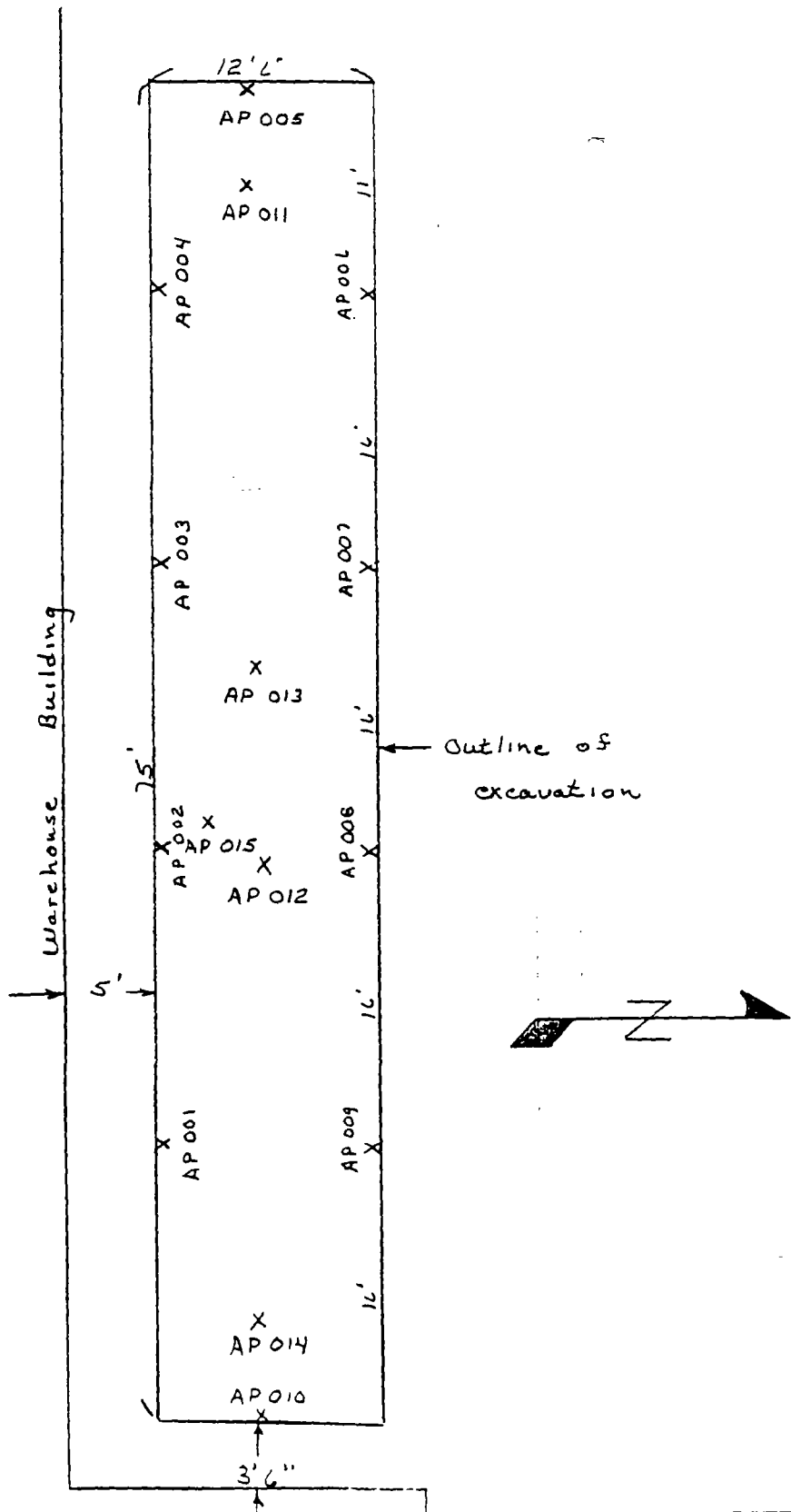
It has been a pleasure serving you. If there are any questions concerning the results or ASLI's policies, please feel free to contact me.

Sincerely;



Analytical Services Laboratory, Inc.

EXHIBIT 3.1  
Soil Sample Location Map  
Airtex Products





Analytical Services Laboratory Inc.  
College Industrial Park, Bldg 4-420  
P.O. Box 14228  
Louisville, KY 40214  
PHONE: (502) 635-1324 FAX: (502) 636-3192

Central States Environmental  
P. O. Box 684  
Centralia, IL 62801  
ATT: PHIL RICHARDSON

PAGE : 2

Ref: results of requested analysis

Sample information:

Received from: Central States Environmental

Project #: AIRTEX

Site Location: ILLINOIS

Taken on : Jun 22, 1992 Time: 00:00

Type: SOLID Customer ID #: AP-001

Preservation: BLUE ICE Container: AMBER JAR

Analysis requested: 8310

---

Laboratory information

ASLI ID #: CSE0020A Date sample received: Jun 24, 1992

Method: 8310 / HPLC PNA (PAH)

Tested: 6/29/92

Analyst: RP

---

Compounds above the detectable threshold are:

NONE DETECTED

Reviewed By: Michael J. Smith

Customer ID: AP-001

ASLI ID: CSE0020A

PAGE : 3

Tested: 6/29/92

----- Compound Search List -----

\*\*\* EPA METHOD 8310 / HPLC PNA (PAH) \*\*\*

Compound		Amount	Units
NAPHTHALENE	<	2.0	ug/Kg
ACENAPHTHENE	<	2.0	ug/Kg
ACENAPHTHYLENE	<	2.0	ug/Kg
ANTHRACENE	<	2.0	ug/Kg
BENZO(A)ANTHRACENE	<	2.0	ug/Kg
BENZO(A)PYRENE	<	2.0	ug/Kg
BENZO(B)FLUORANTHENE	<	2.0	ug/Kg
BENZO(K)FLUORANTHENE	<	2.0	ug/Kg
BENZO(GHI)PERYLENE	<	2.0	ug/Kg
CHRYSENE	<	2.0	ug/Kg
FLUORANTHENE	<	2.0	ug/Kg
FLUORENE	<	2.0	ug/Kg
INDENO(1,2,3-CD) PYRENE	<	2.0	ug/Kg
PHENANTHRENE	<	2.0	ug/Kg
PYRENE	<	2.0	ug/Kg
DIBENZO(A,H) ANTHRACENE	<	2.0	ug/Kg

Surrogate Recovery:

% Actual

% Limits

GC/MS DETECTION LIMIT IS 2.0 ug/Kg

DILUTION FACTOR IS

1.00

Analytical Services Laboratory Inc.  
College Industrial Park, Bldg 4-420  
P.O. Box 14228  
Louisville, KY 40214

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Central States Environmental  
P. O. Box 684  
Centralia, IL 62801  
ATT: PHIL RICHARDSON

PAGE : 4

Ref: results of requested analysis

Sample information:

Received from: Central States Environmental

Project #: AIRTEX

Site Location: ILLINOIS

Taken on : Jun 22, 1992 Time: 00:00

Type: SOLID Customer ID #: AP-002

Preservation: BLUE ICE Container: AMBER JAR

Analysis requested: 8310

Laboratory information

ASLI ID #: CSE0020B Date sample received: Jun 24, 1992

Method: 8310 / HPLC PNA (PAH)

Tested: 6/29/92

Analyst: RP

Compounds above the detectable threshold are:

NONE DETECTED

Reviewed By: Michael D. Light

Customer ID: AP-002  
Tested: 6/29/92

ASLI ID: CSE0020B

PAGE : 5

---- Compound Search List ----

\*\*\* EPA METHOD 8310 / HPLC PNA (PAH) \*\*\*

Compound		Amount	Units
NAPHTHALENE	<	2.0	ug/Kg
ACENAPHTHENE	<	2.0	ug/Kg
ACENAPHTHYLENE	<	2.0	ug/Kg
ANTHRACENE	<	2.0	ug/Kg
BENZO(A)ANTHRACENE	<	2.0	ug/Kg
BENZO(A)PYRENE	<	2.0	ug/Kg
BENZO(B)FLUORANTHENE	<	2.0	ug/Kg
BENZO(K)FLUORANTHENE	<	2.0	ug/Kg
BENZO(GHI)PERYLENE	<	2.0	ug/Kg
CHRYSENE	<	2.0	ug/Kg
FLUORANTHENE	<	2.0	ug/Kg
FLUORENE	<	2.0	ug/Kg
INDENO(1,2,3-CD) PYRENE	<	2.0	ug/Kg
PHENANTHRENE	<	2.0	ug/Kg
PYRENE	<	2.0	ug/Kg
DIBENZO(A,H) ANTHRACENE	<	2.0	ug/Kg

Surrogate Recovery:

% Actual

% Limits

GC/MS DETECTION LIMIT IS 2.0 ug/Kg

DILUTION FACTOR IS 1.00

Analytical Services Laboratory Inc.  
College Industrial Park, Bldg 4-420  
P.O. Box 14228  
Louisville, KY 40214

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Central States Environmental  
P. O. Box 684  
Centralia, IL 62801  
ATT: PHIL RICHARDSON

PAGE : 6

Ref: results of requested analysis

Sample information:

Received from: Central States Environmental

Project #: AIRTEX

Site Location: ILLINOIS

Taken on : Jun 22, 1992

Time: 00:00

Type: SOLID

Customer ID #: AP-003

Preservation: BLUE ICE

Container: AMBER JAR

Analysis requested: 8310

---

Laboratory information

ASLI ID #: CSE0020C Date sample received: Jun 24, 1992

Method: 8310 / HPLC PNA (PAH)

Tested: 6/29/92

Analyst: RP

---

Compounds above the detectable threshold are:

NONE DETECTED

Reviewed By: Michael Triplett

Customer ID: AP-003

ASLI ID: CSE0020C

PAGE : 7

Tested: 6/29/92

---- Compound Search List ----

\*\*\* EPA METHOD 8310 / HPLC PNA (PAH) \*\*\*

Compound		Amount	Units
NAPHTHALENE	<	2.0	ug/Kg
ACENAPHTHENE	<	2.0	ug/Kg
ACENAPHTHYLENE	<	2.0	ug/Kg
ANTHRACENE	<	2.0	ug/Kg
BENZO(A)ANTHRACENE	<	2.0	ug/Kg
BENZO(A)PYRENE	<	2.0	ug/Kg
BENZO(B)FLUORANTHENE	<	2.0	ug/Kg
BENZO(K)FLUORANTHENE	<	2.0	ug/Kg
BENZO(GHI)PERYLENE	<	2.0	ug/Kg
CHRYSENE	<	2.0	ug/Kg
FLUORANTHENE	<	2.0	ug/Kg
FLUORENE	<	2.0	ug/Kg
INDENO(1,2,3-CD) PYRENE	<	2.0	ug/Kg
PHENANTHRENE	<	2.0	ug/Kg
PYRENE	<	2.0	ug/Kg
DIBENZO(A,H) ANTHRACENE	<	2.0	ug/Kg

Surrogate Recovery:

% Actual

% Limits

GC/MS DETECTION LIMIT IS 2.0 ug/Kg

DILUTION FACTOR IS

1.00

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College Industrial Park, Bldg 4-420  
P.O. Box 14228  
Louisville, KY 40214

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Central States Environmental  
P. O. Box 684  
Centralia, IL 62801  
ATT: PHIL RICHARDSON

PAGE : 8

Ref: results of requested analysis

Sample information:

Received from: Central States Environmental

Project #: AIRTEX

Site Location: ILLINOIS

Taken on : Jun 22, 1992

Time: 00:00

Type: SOLID

Customer ID #: AP-004

Preservation: BLUE ICE

Container: AMBER JAR

Analysis requested: 8310

---

Laboratory information

ASLI ID #: CSE0020D Date sample received: Jun 24, 1992

Method: 8310 / HPLC PNA (PAH)

Tested: 7/01/92

Analyst: RP

---

Compounds above the detectable threshold are:

NONE DETECTED

Reviewed By: Michael J. Wright

Customer ID: AP-004

ASLI ID: CSE0020D

PAGE : 9

Tested: 7/01/92

---- Compound Search List ----

\*\*\* EPA METHOD 8310 / HPLC PNA (PAH) \*\*\*

Compound		Amount	Units
NAPHTHALENE	<	2.0	ug/Kg
ACENAPHTHENE	<	2.0	ug/Kg
ACENAPHTHYLENE	<	2.0	ug/Kg
ANTHRACENE	<	2.0	ug/Kg
BENZO(A)ANTHRACENE	<	2.0	ug/Kg
BENZO(A)PYRENE	<	2.0	ug/Kg
BENZO(B)FLUORANTHENE	<	2.0	ug/Kg
BENZO(K)FLUORANTHENE	<	2.0	ug/Kg
BENZO(GHI)PERYLENE	<	2.0	ug/Kg
CHRYSENE	<	2.0	ug/Kg
FLUORANTHENE	<	2.0	ug/Kg
FLUORENE	<	2.0	ug/Kg
INDENO(1,2,3-CD) PYRENE	<	2.0	ug/Kg
PHENANTHRENE	<	2.0	ug/Kg
PYRENE	<	2.0	ug/Kg
DIBENZO(A,H) ANTHRACENE	<	2.0	ug/Kg

Surrogate Recovery:

% Actual

% Limits

GC/MS DETECTION LIMIT IS 2.0 ug/Kg

DILUTION FACTOR IS

1.00



Analytical Services Laboratory Inc.  
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Louisville, KY 40214

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P. O. Box 684  
Centralia, IL 62801  
ATT: PHIL RICHARDSON

PAGE : 10

Ref: results of requested analysis

Sample information:

Received from: Central States Environmental

Project #: AIRTEX

Site Location: ILLINOIS

Taken on : Jun 22, 1992

Time: 00:00

Type: SOLID

Customer ID #: AP-005

Preservation: BLUE ICE

Container: AMBER JAR

Analysis requested: 8310

---

Laboratory information

ASLI ID #: CSE0020E Date sample received: Jun 24, 1992

Method: 8310 / HPLC PNA (PAH)

Tested: 6/29/92

Analyst: RP

---

Compounds above the detectable threshold are:

PHENANTHRENE

Reviewed By: Michael J. Hest

Customer ID: AP-005  
Tested: 6/29/92

ASLI ID: CSE0020E

PAGE : 11

---- Compound Search List ----

\*\*\* EPA METHOD 8310 / HPLC PNA (PAH) \*\*\*

Compound		Amount	Units
NAPHTHALENE	<	2.0	ug/Kg
ACENAPHTHENE	<	2.0	ug/Kg
ACENAPHTHYLENE	<	2.0	ug/Kg
ANTHRACENE	<	2.0	ug/Kg
BENZO(A)ANTHRACENE	<	2.0	ug/Kg
BENZO(A)PYRENE	<	2.0	ug/Kg
BENZO(B)FLUORANTHENE	<	2.0	ug/Kg
BENZO(K)FLUORANTHENE	<	2.0	ug/Kg
BENZO(GHI)PERYLENE	<	2.0	ug/Kg
CHRYSENE	<	2.0	ug/Kg
FLUORANTHENE	<	2.0	ug/Kg
FLUORENE	<	2.0	ug/Kg
INDENO(1,2,3-CD) PYRENE	<	2.0	ug/Kg
PHENANTHRENE	==	51.0	ug/Kg
PYRENE	<	2.0	ug/Kg
DIBENZO(A,H) ANTHRACENE	<	2.0	ug/Kg

Surrogate Recovery:

% Actual

% Limits

GC/MS DETECTION LIMIT IS 2.0 ug/Kg

DILUTION FACTOR IS

1.00

Analytical Services Laboratory Inc.  
College Industrial Park, Bldg 4-420  
P.O. Box 14228  
Louisville, KY 40214

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Central States Environmental  
P. O. Box 684  
Centralia, IL 62801  
ATT: PHIL RICHARDSON

PAGE : 12

Ref: results of requested analysis

Sample information:

Received from: Central States Environmental

Project #: AIRTEX

Site Location: ILLINOIS

Taken on : Jun 22, 1992

Time: 00:00

Type: SOLID

Customer ID #: AP-006

Preservation: BLUE ICE

Container: AMBER JAR

Analysis requested: 8310

Laboratory information

ASLI ID #: CSE0020F Date sample received: Jun 24, 1992

Method: 8310 / HPLC PNA (PAH)

Tested: 6/29/92

Analyst: RP

Compounds above the detectable threshold are:

NONE DETECTED

Reviewed By: Michael J. Pitt

Customer ID: AP-006

ASLI ID: CSE0020F

PAGE : 13

Tested: 6/29/92

----- Compound Search List -----

\*\*\* EPA METHOD 8310 / HPLC PNA (PAH) \*\*\*

Compound		Amount	Units
NAPHTHALENE	<	2.0	ug/Kg
ACENAPHTHENE	<	2.0	ug/Kg
ACENAPHTHYLENE	<	2.0	ug/Kg
ANTHRACENE	<	2.0	ug/Kg
BENZO(A)ANTHRACENE	<	2.0	ug/Kg
BENZO(A)PYRENE	<	2.0	ug/Kg
BENZO(B)FLUORANTHENE	<	2.0	ug/Kg
BENZO(K)FLUORANTHENE	<	2.0	ug/Kg
BENZO(GHI)PERYLENE	<	2.0	ug/Kg
CHRYSENE	<	2.0	ug/Kg
FLUORANTHENE	<	2.0	ug/Kg
FLUORENE	<	2.0	ug/Kg
INDENO(1,2,3-CD) PYRENE	<	2.0	ug/Kg
PHENANTHRENE	<	2.0	ug/Kg
PYRENE	<	2.0	ug/Kg
DIBENZO(A,H) ANTHRACENE	<	2.0	ug/Kg

Surrogate Recovery:

% Actual

% Limits

GC/MS DETECTION LIMIT IS 2.0 ug/Kg

DILUTION FACTOR IS

1.00

Analytical Services Laboratory Inc.  
College Industrial Park, Bldg 4-420  
P.O. Box 14228  
Louisville, KY 40214

PHONE: (502) 635-1324 FAX: (502) 636-3192

Central States Environmental  
P. O. Box 684  
Centralia, IL 62801  
ATT: PHIL RICHARDSON

PAGE : 14

Ref: results of requested analysis

Sample information:

Received from: Central States Environmental

Project #: AIRTEX

Site Location: ILLINOIS

Taken on : Jun 22, 1992

Time: 00:00

Type: SOLID

Customer ID #: AP-007

Preservation: BLUE ICE

Container: AMBER JAR

Analysis requested: 8310

Laboratory information

ASLI ID #: CSE0020G Date sample received: Jun 24, 1992

Method: 8310 / HPLC PNA (PAH)

Tested: 7/01/92

Analyst: RP

Compounds above the detectable threshold are:

NONE DETECTED

Reviewed By: Michael - [Signature]

Customer ID: AP-007

ASLI ID: CSE0020G

PAGE : 15

Tested: 7/01/92

---- Compound Search List ----

\*\*\* EPA METHOD 8310 / HPLC PNA (PAH) \*\*\*

Compound		Amount	Units
NAPHTHALENE	<	2.0	ug/Kg
ACENAPHTHENE	<	2.0	ug/Kg
ACENAPHTHYLENE	<	2.0	ug/Kg
ANTHRACENE	<	2.0	ug/Kg
BENZO(A)ANTHRACENE	<	2.0	ug/Kg
BENZO(A)PYRENE	<	2.0	ug/Kg
BENZO(B)FLUORANTHENE	<	2.0	ug/Kg
BENZO(K)FLUORANTHENE	<	2.0	ug/Kg
BENZO(GHI)PERYLENE	<	2.0	ug/Kg
CHRYSENE	<	2.0	ug/Kg
FLUORANTHENE	<	2.0	ug/Kg
FLUORENE	<	2.0	ug/Kg
INDENO(1,2,3-CD) PYRENE	<	2.0	ug/Kg
PHENANTHRENE	<	2.0	ug/Kg
PYRENE	<	2.0	ug/Kg
DIBENZO(A,H) ANTHRACENE	<	2.0	ug/Kg

Surrogate Recovery:

% Actual

% Limits

GC/MS DETECTION LIMIT IS 2.0 ug/Kg

DILUTION FACTOR IS

1.00

Analytical Services Laboratory Inc.  
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P.O. Box 14228  
Louisville, KY 40214

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Central States Environmental  
P. O. Box 684  
Centralia, IL 62801  
ATT: PHIL RICHARDSON

PAGE : 16

Ref: results of requested analysis

Sample information:

Received from: Central States Environmental

Project #: AIRTEX

Site Location: ILLINOIS

Taken on : Jun 22, 1992

Time: 00:00

Type: SOLID

Customer ID #: AP-008

Preservation: BLUE ICE

Container: AMBER JAR

Analysis requested: 8310

Laboratory information

ASLI ID #: CSE0020H Date sample received: Jun 24, 1992

Method: 8310 / HPLC PNA (PAH)

Tested: 6/29/92

Analyst: RP

Compounds above the detectable threshold are:

NONE DETECTED

Reviewed By:

*Michael L. Fink*

Customer ID: AP-008  
Tested: 6/29/92

ASLI ID: CSE0020H

PAGE : 17

---- Compound Search List ----  
\*\*\* EPA METHOD 8310 / HPLC PNA (PAH) \*\*\*

Compound		Amount	Units
NAPHTHALENE	<	2.0	ug/Kg
ACENAPHTHENE	<	2.0	ug/Kg
ACENAPHTHYLENE	<	2.0	ug/Kg
ANTHRACENE	<	2.0	ug/Kg
BENZO(A)ANTHRACENE	<	2.0	ug/Kg
BENZO(A)PYRENE	<	2.0	ug/Kg
BENZO(B)FLUORANTHENE	<	2.0	ug/Kg
BENZO(K)FLUORANTHENE	<	2.0	ug/Kg
BENZO(GHI)PERYLENE	<	2.0	ug/Kg
CHRYSENE	<	2.0	ug/Kg
FLUORANTHENE	<	2.0	ug/Kg
FLUORENE	<	2.0	ug/Kg
INDENO(1,2,3-CD) PYRENE	<	2.0	ug/Kg
PHENANTHRENE	<	2.0	ug/Kg
PYRENE	<	2.0	ug/Kg
DIBENZO(A,H) ANTHRACENE	<	2.0	ug/Kg

Surrogate Recovery:

% Actual

% Limits

GC/MS DETECTION LIMIT IS 2.0 ug/Kg

DILUTION FACTOR IS

1.00



Analytical Services Laboratory Inc.  
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P.O. Box 14228  
Louisville, KY 40214  
PHONE: (502) 635-1324 FAX: (502) 636-3192

Central States Environmental  
P. O. Box 684  
Centralia, IL 62801  
ATT: PHIL RICHARDSON

PAGE : 18

Ref: results of requested analysis

Sample information:

Received from: Central States Environmental

Project #: AIRTEX

Site Location: ILLINOIS

Taken on : Jun 22, 1992

Time: 00:00

Type: SOLID

Customer ID #: AP-009

Preservation: BLUE ICE

Container: AMBER JAR

Analysis requested: 8310

---

Laboratory information

ASLI ID #: CSE0020I Date sample received: Jun 24, 1992

Method: 8310 / HPLC PNA (PAH)

Tested: 6/29/92

Analyst: RP

---

Compounds above the detectable threshold are:

NONE DETECTED

Reviewed By: Michael J. Smith

Customer ID: AP-009

ASLI ID: CSE0020I

PAGE : 19

Tested: 6/29/92

----- Compound Search List -----

\*\*\* EPA METHOD 8310 / HPLC PNA (PAH) \*\*\*

Compound		Amount	Units
NAPHTHALENE	<	2.0	ug/Kg
ACENAPHTHENE	<	2.0	ug/Kg
ACENAPHTHYLENE	<	2.0	ug/Kg
ANTHRACENE	<	2.0	ug/Kg
BENZO(A)ANTHRACENE	<	2.0	ug/Kg
BENZO(A)PYRENE	<	2.0	ug/Kg
BENZO(B)FLUORANTHENE	<	2.0	ug/Kg
BENZO(K)FLUORANTHENE	<	2.0	ug/Kg
BENZO(GHI)PERYLENE	<	2.0	ug/Kg
CHRYSENE	<	2.0	ug/Kg
FLUORANTHENE	<	2.0	ug/Kg
FLUORENE	<	2.0	ug/Kg
INDENO(1,2,3-CD) PYRENE	<	2.0	ug/Kg
PHENANTHRENE	<	2.0	ug/Kg
PYRENE	<	2.0	ug/Kg
DIBENZO(A,H) ANTHRACENE	<	2.0	ug/Kg

Surrogate Recovery:

% Actual

% Limits

GC/MS DETECTION LIMIT IS 2.0 ug/Kg

DILUTION FACTOR IS

1.00

Analytical Services Laboratory Inc.  
College Industrial Park, Bldg 4-420  
P.O. Box 14228  
Louisville, KY 40214

PHONE: (502) 635-1324 FAX: (502) 636-3192

Central States Environmental  
P. O. Box 684  
Centralia, IL 62801  
ATT: PHIL RICHARDSON

PAGE : 20

Ref: results of requested analysis

Sample information:

Received from: Central States Environmental

Project #: AIRTEX

Site Location: ILLINOIS

Taken on : Jun 22, 1992

Time: 00:00

Type: SOLID

Customer ID #: AP-010

Preservation: BLUE ICE

Container: AMBER JAR

Analysis requested: 8310

Laboratory information

ASLI ID #: CSE0020J Date sample received: Jun 24, 1992

Method: 8310 / HPLC PNA (PAH)

Tested: 6/29/92

Analyst: RP

Compounds above the detectable threshold are:

NAPHTHALENE  
BENZO(A)PYRENE  
BENZO(K)FLUORANTHENE  
FLUORANTHENE  
PYRENE

BENZO(A)ANTHRACENE  
BENZO(B)FLUORANTHENE  
CHRYSENE  
PHENANTHRENE

Reviewed By: Michael J. Light

Customer ID: AP-010

ASLI ID: CSE0020J

PAGE : 21

Tested: 6/29/92

----- Compound Search List -----

\*\*\* EPA METHOD 8310 / HPLC PNA (PAH) \*\*\*

Compound		Amount	Units
NAPHTHALENE	==	42.0 <sup>25</sup>	ug/Kg
ACENAPHTHENE	<	2.0	ug/Kg
ACENAPHTHYLENE	<	2.0	ug/Kg
ANTHRACENE	<	2.0	ug/Kg
BENZO(A)ANTHRACENE	==	140.0	ug/Kg
BENZO(A)PYRENE	==	97.0	ug/Kg
BENZO(B)FLUORANTHENE	==	93.0	ug/Kg
BENZO(K)FLUORANTHENE	==	58.0	ug/Kg
BENZO(GHI)PERYLENE	<	2.0	ug/Kg
CHRYSENE	==	150.0	ug/Kg
FLUORANTHENE	==	55.0	ug/Kg
FLUORENE	<	2.0	ug/Kg
INDENO(1,2,3-CD) PYRENE	<	2.0	ug/Kg
PHENANTHRENE	==	140.0 <sup>42</sup>	ug/Kg
PYRENE	==	190.0 <sup>42</sup>	ug/Kg
DIBENZO(A,H) ANTHRACENE	<	2.0	ug/Kg

Surrogate Recovery:

% Actual

% Limits

GC/MS DETECTION LIMIT IS 2.0 ug/Kg

DILUTION FACTOR IS

1.00

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PAGE : 22

Ref: results of requested analysis

Sample information:

Received from: Central States Environmental

Project #: AIRTEX

Site Location: ILLINOIS

Taken on : Jun 22, 1992

Time: 00:00

Type: SOLID

Customer ID #: AP-011

Preservation: BLUE ICE

Container: AMBER JAR

Analysis requested: 8310

Laboratory information

ASLI ID #: CSE0020K Date sample received: Jun 24, 1992

Method: 8310 / HPLC PNA (PAH)

Tested: 6/29/92

Analyst: RP

Compounds above the detectable threshold are:

ANTHRACENE  
BENZO(A)PYRENE  
BENZO(K)FLUORANTHENE  
FLUORANTHENE  
PYRENE

BENZO(A)ANTHRACENE  
BENZO(B)FLUORANTHENE  
CHRYSENE  
PHENANTHRENE

Reviewed By: Michael J. Smith

Customer ID: AP-011  
Tested: 6/29/92

ASLI ID: CSE0020K

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----- Compound Search List -----

\*\*\* EPA METHOD 8310 / HPLC PNA (PAH) \*\*\*

Compound		Amount	Units
NAPHTHALENE	<	2.0	ug/Kg
ACENAPHTHENE	<	2.0	ug/Kg
ACENAPHTHYLENE	<	2.0	ug/Kg
ANTHRACENE	==	54.0	ug/Kg
BENZO(A)ANTHRACENE	==	300.0	ug/Kg
BENZO(A)PYRENE	==	180.0	ug/Kg
BENZO(B)FLUORANTHENE	==	260.0	ug/Kg
BENZO(K)FLUORANTHENE	==	240.0	ug/Kg
BENZO(GHI)PERYLENE	<	2.0	ug/Kg
CHRYSENE	==	250.0	ug/Kg
FLUORANTHENE	==	190.0	ug/Kg
FLUORENE	<	2.0	ug/Kg
INDENO(1,2,3-CD) PYRENE	<	2.0	ug/Kg
PHENANTHRENE	==	52.0	ug/Kg
PYRENE	==	120.0	ug/Kg
DIBENZO(A,H) ANTHRACENE	<	2.0	ug/Kg

Surrogate Recovery:

% Actual

% Limits

GC/MS DETECTION LIMIT IS 2.0 ug/Kg

DILUTION FACTOR IS

1.00

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PAGE : 24

Ref: results of requested analysis

Sample information:

Received from: Central States Environmental

Project #: AIRTEX

Site Location: ILLINOIS

Taken on : Jun 22, 1992

Time: 00:00

Type: SOLID

Customer ID #: AP-013

Preservation: BLUE ICE

Container: AMBER JAR

Analysis requested: 8310

Laboratory information

ASLI ID #: CSE0020L Date sample received: Jun 24, 1992

Method: 8310 / HPLC PNA (PAH)

Tested: 7/01/92

Analyst: RP

Compounds above the detectable threshold are:

NONE DETECTED

Reviewed By: Michael J. Smith

Customer ID: AP-013

ASLI ID: CSE0020L

PAGE : 25

Tested: 7/01/92

---- Compound Search List ----

\*\*\* EPA METHOD 8310 / HPLC PNA (PAH) \*\*\*

Compound		Amount	Units
NAPHTHALENE	<	2.0	ug/Kg
ACENAPHTHENE	<	2.0	ug/Kg
ACENAPHTHYLENE	<	2.0	ug/Kg
ANTHRACENE	<	2.0	ug/Kg
BENZO(A)ANTHRACENE	<	2.0	ug/Kg
BENZO(A)PYRENE	<	2.0	ug/Kg
BENZO(B)FLUORANTHENE	<	2.0	ug/Kg
BENZO(K)FLUORANTHENE	<	2.0	ug/Kg
BENZO(GHI)PERYLENE	<	2.0	ug/Kg
CHRYSENE	<	2.0	ug/Kg
FLUORANTHENE	<	2.0	ug/Kg
FLUORENE	<	2.0	ug/Kg
INDENO(1,2,3-CD) PYRENE	<	2.0	ug/Kg
PHENANTHRENE	<	2.0	ug/Kg
PYRENE	<	2.0	ug/Kg
DIBENZO(A,H) ANTHRACENE	<	2.0	ug/Kg

Surrogate Recovery:

% Actual

% Limits

GC/MS DETECTION LIMIT IS 2.0 ug/Kg

DILUTION FACTOR IS

1.00



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PAGE : 26

Ref: results of requested analysis

Sample information:

Received from: Central States Environmental

Project #: AIRTEX

Site Location: ILLINOIS

Taken on : Jun 22, 1992

Time: 00:00

Type: SOLID

Customer ID #: AP-014

Preservation: BLUE ICE

Container: AMBER JAR

Analysis requested: 8310

Laboratory information

ASLI ID #: CSE0020M Date sample received: Jun 24, 1992

Method: 8310 / HPLC PNA (PAH)

Tested: 7/01/92

Analyst: RP

Compounds above the detectable threshold are:

NONE DETECTED

Reviewed By: Michael J. Light

Customer ID: AP-014  
Tested: 7/01/92

ASLI ID: CSE0020M

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----- Compound Search List -----

\*\*\* EPA METHOD 8310 / HPLC PNA (PAH) \*\*\*

Compound		Amount	Units
NAPHTHALENE	<	2.0	ug/Kg
ACENAPHTHENE	<	2.0	ug/Kg
ACENAPHTHYLENE	<	2.0	ug/Kg
ANTHRACENE	<	2.0	ug/Kg
BENZO(A)ANTHRACENE	<	2.0	ug/Kg
BENZO(A)PYRENE	<	2.0	ug/Kg
BENZO(B)FLUORANTHENE	<	2.0	ug/Kg
BENZO(K)FLUORANTHENE	<	2.0	ug/Kg
BENZO(GHI)PERYLENE	<	2.0	ug/Kg
CHRYSENE	<	2.0	ug/Kg
FLUORANTHENE	<	2.0	ug/Kg
FLUORENE	<	2.0	ug/Kg
INDENO(1,2,3-CD) PYRENE	<	2.0	ug/Kg
PHENANTHRENE	<	2.0	ug/Kg
PYRENE	<	2.0	ug/Kg
DIBENZO(A,H) ANTHRACENE	<	2.0	ug/Kg

Surrogate Recovery:

% Actual

% Limits

GC/MS DETECTION LIMIT IS 2.0 ug/Kg

DILUTION FACTOR IS

1.00

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PAGE : 28

Ref: results of requested analysis

Sample information:

Received from: Central States Environmental

Project #: AIRTEX

Site Location: ILLINOIS

Taken on : Jun 22, 1992

Time: 00:00

Type: SOLID

Customer ID #: AP-015

Preservation: BLUE ICE

Container: AMBER JAR

Analysis requested: 8310

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Laboratory information

ASLI ID #: CSE0020N Date sample received: Jun 24, 1992

Method: 8310 / HPLC PNA (PAH)

Tested: 6/29/92

Analyst: RP

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Compounds above the detectable threshold are:

BENZO(A)ANTHRACENE

CHRYSENE

Reviewed By: Michael J. J. J.